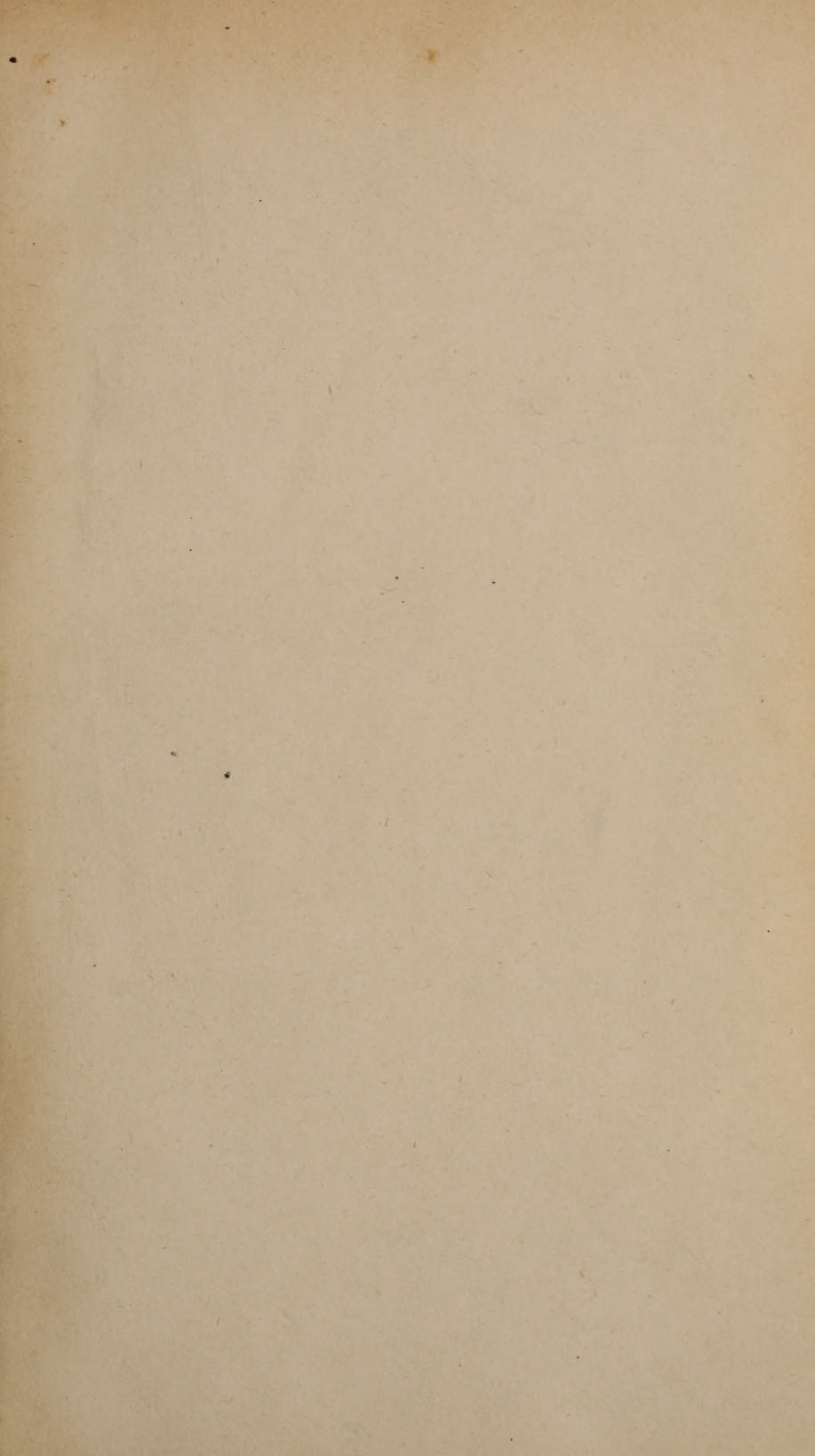


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INDEX TO VOL. XLIV.

	PAGE.
Acute Syphilis, A Case of Insanity Associated with. By Joseph Wiglesworth, M. D.,	391
Act in Relation to the Care and Custody of the Pauper Insane,	526
Adultery, Insanity and,	532
Amendment Bill, English Lunacy Acts,	147
American Journal of Insanity,	149
American Institutions for Idiots and Feeble-minded Persons, Proceedings of the Association of Medical Officers of,	527
Anæsthetics in Operations, Insanity following the use of,	531
Andrews, J. B., M. D. Memoir of Dr. John Perdue Gray,	21
Andrews, J. B., M. D. The Distribution and Care of the Insane in the United States,	192
Annual Meeting of the Association,	151
Annals of Surgery,	548
Appointment of Dr. Givens,	155
Appointment of Dr. Kempster,	154
Appointment of Dr. McFarlane,	155
Appointments, New,	560
Association of Medical Superintendents of American Institutions for the Insane, Proceedings of,	77, 569
Association, the Annual Meeting of,	151
Asylum Boards, Michigan, Joint Meeting of,	441
Asylum for the Insane, The St. Lawrence State,	400, 443, 540
Asylum for Insane Criminals, New,	534
Asylum News, Quarterly Summary of,	315, 447, 575
Asylums, Remarks on Some European. By Frederick Peterson, M. D., ..	1
Asylum, The Buffalo Insane,	438
Asylums, The New York City,	305
Asylum, The Schools of the Richmond District Lunatic,	145
Asylum Reports,	136
Asylum Service Provident Scheme,	560
Asylum, Rosewell, Midlothian,	561
Attendants, Training of,	427
Ataxia, Progressive Spastic,	416
Athetosis,	415
Athetosis Associated with Insanity,	534
Aural Disease, Mental Affections, and,	410
Ayers, Alfred, <i>against</i> Selwyn A. Russell, Daniel O'Leary and Anthony Gould,	519
Atrophy, Cerebral, with Subsequent Cystic Degeneration. By A. Nellis, Jr., M. D.,	220
Bannister, H. M., M. D., and Ludwig Hektoen, M. D. Race and Insanity,	455

Beach, Fletcher, M. B. Cases of Idiocy and Imbecility due to Inherited Syphilis,	387
Beckwith, Hon. Charles, Charge to the Jury in the Brown Case,	408
Bingham, Walter L., Case of,	224
Bovine Tuberculosis,	152
Brown Case and the Buffalo Asylum,	407
Buffalo Asylum Attendants, The Case of the,	309
Buffalo Insane Asylum,	438
Butler, John L., M. D. The Curability of Insanity and the Individualized Treatment of the Insane,	423
Callender, J. H., M. D. Memoir of Dr. John Perdue Gray,	32
Care and Custody of the Pauper Insane, An Act in Relation to the,	526
Cerebral Circulation, Gärtner and Wagner on the,	411
Cerebral Hemispheres in the Insane, The Weight of,	417
Channing, Walter, M. D. An International Classification of Mental Diseases,	361
Chapter from the History of the State Asylum for Insane at Morristown, New Jersey,	428
Charge of the Hon. Charles Beckwith to the Jury in the Brown Case,	408
Christian, E. A., M. D. A Case of General Paralysis, Apparently of Traumatic Origin,	514
Christian, Jules, M. D. Researches on the Etiology of General Paralysis,	488
Chronic Bright's Disease, Mental Affections Associated with,	415
Clark, Daniel, M. D. A Psycho-Medical History of Louis Riel,	33
Classification of Mental Diseases. By H. P. Stearns, M. D.,	350
Chronic Insane, The Care of. By P. M. Wise, M. D.,	170
Classification of the Insane,	312
CLINICAL CASES:	
Eight Cases of Trephining for Traumatic Insanity. By W. B. Fletcher, M. D.,	212
Case of Insanity Associated with Acute Syphilis. By Joseph Wigglesworth, M. D.,	391
Case of Cerebral Atrophy with Subsequent Cystic Degeneration. By A. Nellis, Jr., M. D.,	220
Cases of Idiocy and Imbecility Due to Inherited Syphilis. By Fletcher Beach, M. B.,	387
Cases Illustrative of the Localization of Cerebral Functions. By William L. Worcester, M. D.,	66
Hereditary Cases of Progressive Muscular Atrophy. By A. H. Harrington, M. D.,	73
Idiocy and Imbecility due to Inherited Syphilis. By G. E. Shuttleworth, M. D.,	381
Syphilitic Insanity. By D. Frank Kinnier, M. D.,	510
General Paralysis, Apparently of Traumatic Origin. By E. A. Christian, M. D.,	514
Concealed Insanity, The Detection of by Nitrous Oxide Gas,	532
Concerning Commitment and Transfer of the Insane, Massachusetts Act,	432

Congress, Ninth International Medical,	153, 303, 427
Congress on Inebriety,	308
Colony System of Caring for the Insane. By George E. Palmer, M. D.,	157
Corpora Striata, Symmetrical Disease of,	413
Correction,	434
County Poor-houses, The Insane in,	567
Cowles, Edward, M. D. Nursing-Reform for the Insane,	176
County Care <i>vs.</i> State Care,	306
Crime, Insanity as a Defense for. By W. W. Godding, M. D.,	393
Curability of Insanity and the Individualized Treatment of the Insane. By John S. Butler, M. D.,	423
Deaf-Mutism and Insanity, Connection between, Case of Walter L. Bingham. By Eugene Grissom, M. D.,	224
Dipsomania, Kleptomania, Pyromania, etc. Are They Valid Forms of Mental Disease? By Orpheus Everts, M. D.,	52
Diphtheria, A Treatise on, Historically, and Practically Considered. By A. Sanné, M. D.,	131
Detection of Concealed Insanity by Nitrous Oxide Gas,	538
Distribution and Care of the Insane in the United States. By J. B. Andrews, M. D.,	192
English Lunacy Acts Amendment Bill,	147
Erlenmeyer, Albrecht, M. D. The Morphine Habit and its Treatment, (Die Morphiumsucht und ihre Behandlung),	418
Everts, Orpheus, M. D. Are Dipsomania, Kleptomania, Pyromania, etc., Valid Forms of Mental Disease?	52
Experience, Influence <i>vs.</i> ,	560
European Asylums, Remarks on. By Frederick Peterson, M. D.,	1
Fletcher, W. B., M. D. Eight Cases of Trephining for Traumatic Insanity,	212
Fothergill on Beef Tea,	289
Fourteenth Annual Report of the State Charities Aid Association,	310
Fourteenth Annual Report of the State Commissioner in Lunacy,	435
Foville, Achille, M. D., Obituary,	446, 573
Frontispiece, Miss Dorothea L. Dix,	323
Frontispiece, William B. Goldsmith, M. D.,	454
Gärtner and Wagner on the Cerebral Circulation,	411
Gastric, Secretary and other Crises in General Paresis. By Henry M. Hurd, M. D.,	60
General Paralysis in Men, Researches on the Etiology of. By Jules Christian, M. D.,	488
General Paralysis, A Case of, Apparently of Traumatic Origin. By E. A. Christian, M. D.,	514
Godding, W. W., M. D. Insanity as a Defense for Crime,	393
Goldsmith, Wm. B., M. D. A Case of Prolonged Mental Stupor, the Result of a Blow upon the Head,	505

Goldsmith, William B., M. D. Obituary,	570, 568
Goldsmith, William B., M. D. Frontispiece,	454
Gray, John Perdue, M. D., Memoir of,	33
Grissom, Eugene, M. D. Is There Any Connection Between Deaf- Mutism and Insanity? Case of Walter L. Bingham,	224
Grissom, Eugene, M. D. Memoir of Dr. John Perdue Gray,	29
Hall, G. Stanley, M. D. The American Journal of Psychology,	544
Harrington, A. H., M. D. Hereditary Cases of Progressive Muscular Atrophy,	72
Hospitals for the Insane of the United States and Canada, Superin- tendents and Senior Assistant Physicians of the,	583
Hurd, Henry M., M. D. Gastric, Secretory and Other Crises in General Paresis,	60
Hurd, Henry M., M. D. The Religious Delusions of the Insane,	471
Hutchinson, Edwin, M. D., Obituary,	446
Hydrotherapy in Mental Diseases,	414
Idiocy and Imbecility, due to Inherited Syphilis,	387
Idaho, Insanity in,	153
Index Medicus,	567
Inebriety, Congress on,	308
Inebriety, International Congress on,	152
Insane, Colony System of Caring for. By George E. Palmer, M. D., ...	157
Insane, Care of the Chronic. By P. M. Wise, M. D.,	170
Insane, Nursing-Reform of. By Edward Cowles, M. D.,	176
Insane, Distribution and Care of, in the United States. By J. B. An- drews, M. D.,	192
Insane, Care of, in Ireland,	297
Insane, Classification of,	312
Insane, Nursing and Care of. By Charles K. Mills, M. D.,	134
Insane, State Care vs. County Care,	444
Insane, Religious Delusions of. By Henry M. Hurd, M. D.,	471
Insane, Vermont Asylum for, Annals for Fifty Years,	547
Insane Criminals, The New Asylum for,	534
Insane in Scotland,	549
Insane in the County Poor-houses,	567
Insane, Religious Delusions of,	568
Insanity, The Curability of, and the Individualized Treatment of the Insane. By John S. Butler, M. D.,	423
Insanity, American Journal of,	149
Insanity and Puerperal Convulsions,	150
Insanity, Syphilis and its Relations to,	323
Insanity as a Defense for Crime. By W. W. Godding, M. D.,	393
Insanity, Race and. By H. M. Bannister, M. D., and Ludwig Hektoen, M. D.,	455
Insanity, Syphilitic. By D. Frank Kinnier, M. D.,	510
Insanity, following the Use of Anæsthetics in Operations,	431
Insanity, Concealed, Detection of by Nitrous Oxide Gas,	532

Insanity and Adultery,.....	532
Insanity, Athetosis, Associated with,.....	534
Insanity, Race and,.....	567
Influence <i>vs.</i> Experience,.....	560
International Medical Congress, Ninth,.....	152, 232, 303, 427
Intellectual Evolution and its Relation to Physiological Dissolution,....	288
International Classification of Mental Diseases. By Walter Channing, M. D.,.....	361
Ireland, Marriage and Insanity in,.....	444
Jewell, James Stewart, M. D., Obituary,.....	156
Kinnier, D. Frank, M. D. Syphilitic Insanity,	510
Localized Cerebral Lesions,.....	289
Lancet on the Congress,.....	290
Legal Test of Responsibility in Alabama,.....	442
London Neurological Society,.....	427
Localization of Cerebral Functions, Cases Illustrative of. By William L. Worcester, M. D.,.....	66
Marriage and Insanity in Ireland,.....	444
Martyrology of Psychiatry,.....	444
Massachusetts Act Concerning the Commitment and Transfer of the Insane,	432
Medical Superintendents, The Association of,.....	569
Melancholia and Urethrotomy,	413
Memoirs of Dr. John Perdue Gray. By J. B. Andrews, M. D., Eugene Grissom, M. D., and J. H. Callender, M. D.,.....	21, 29, 32
Mens Sana in Corpore Sano,.....	151
Mental Diseases, Classification of. By H. P. Stearns, M. D.,.....	350
Mental Affections and Aural Disease,.....	410
Mental Diseases, An International Classification of. By Walter Chan- ning, M. D.,.....	361
Mental Diseases, Hydrotherapy in,.....	414
Mental Affections Associated with Chronic Bright's Disease,.....	415
Mental Stupor, A Case of Prolonged, the result of a Blow upon the Head. By William B. Goldsmith, M. D.,.....	505
Michigan, Joint Meeting of Asylum Boards.....	441
Midlothian, Rosewell Asylum,.....	561
Mills, Charles K., M. D. Nursing and Care of the Nervous and Insane, .	134
Morphine Habit and its Treatment, (Die Morphiumsucht und ihre Be- handlung.) By Albrecht Erlenmeyer, M. D.....	418
Morristown Asylum, A Chapter from the History of,.....	428
Nellis, A., Jr., M. D. Case of Cerebral Atrophy, with Subsequent Cystic Degeneration,	220
Nervous Diseases, Diagnosis of, Phenomena Produced by, and Recognition of their Causes,.....	131

Neurological Society, London,.....	427
New Asylum for Insane Criminals,.....	534
New Appointments,.....	560
New York State Board of Charities, Twentieth Annual Report,.....	310
New York City Asylums,.....	305
Ninth International Congress, Proceedings of,.....	232
Ninth International Medical Congress,.....	153, 303
Nursing-Reform for the Insane. By Edward Cowles, M. D.,.....	176
OBITUARY:	
Miss Dorothea L. Dix,.....	156, 313, 323
Achille Foville, M. D.,	446, 573
Edwin Hutchinson, M. D.,.....	446
James Stewart Jewell, M. D.,.....	156
J. N. Ramaer, M. D.,.....	445
F. E. Roy, M. D.,.....	445
Professor Vulpian,.....	156
William B. Goldsmith, M. D.,.....	570
Open Doors Again,.....	561
Operative Surgery, The Principles and Practice of. By Stephen Smith, M. D.,	291, 426
Palmer, Geo. C., M. D. The Colony System of Caring for the Insane, ..	157
Para-Myoclonus Multiplex,.....	288
Pauper Insane, An Act in relation to the Care and Custody of,.....	526
Patronage in England, Misuse of,.....	565
Pensions Question,.....	559
Pensions, Scotch,.....	148
Peterson, Frederick, M. D. Remarks on some European Asylums,.....	1
Proceedings of the Association of Medical Superintendents of American Institutions for the Insane,.....	77
Progressive Muscular Atrophy, Hereditary Case of. By A. H. Harring- ton, M. D.,.....	73
Preliminary Report of the Commission appointed by the University of Pennsylvania to Investigate Modern Spiritualism,.....	296
Progressive Spastic Ataxia,.....	416
Psychiatry, The Martyrology of,.....	444
Psychological Medicine and Nervous Diseases, Proceedings of the Ninth International Congress,.....	232
Prolonged Mental Stupor, The Remote Effect of a Blow upon the Head. By William B. Goldsmith, M. D.,.....	505
Quarterly Summary of Asylum News,.....	315, 447, 575
Race and Insanity. By H. M. Bannister, M. D., and Ludwig Hektoen, M. D.,.....	455
Race and Insanity,.....	567
Ramaer, J. N., M. D., Obituary,.....	446

Report of Board of Commissioners in Lunacy, for Scotland, Twenty-Ninth Annual,.....	425
Report of the State Commissioner in Lunacy, Fourteenth Annual,.....	435
Religious Delusions of the Insane. By Henry M. Hurd, M. D.,.....	471
Religious Delusions of the Insane,.....	568
Responsibility in Alabama, The Legal Test of,.....	442
Resignations and Appointments,.....	154
Riel, Louis, Psycho-Medical History of. By Daniel Clark, M. D.,.....	33
Rosewell Asylum, Midlothian,.....	561
Roy, F. E., M. D., Obituary,.....	445
Russell, Selwyn A., Daniel O'Leary, and Anthony Gould <i>against</i> Alfred Ayers,	519

REVIEWS:

American Journal of Psychology. By G. Stanley Hall, M. D.,.....	544
Annals of Surgery,	548
The Curability of Insanity and the Individualized Treatment of the Insane. By John S. Butler, M. D.,.....	423
Board of Commissioners in Lunacy for Scotland, Twenty-Ninth Annual Report,.....	425
Insanity, Its Classification, Diagnosis and Treatment. By E. C. Spitzka, M. D.,.....	295
Nervous Diseases and their Diagnosis, A Treatise, etc., with Special Reference to the Recognition of their Causes. By H. C. Wood, M. D.,.....	131
Nursing and Care of the Nervous and Insane. By Charles K. Mills, M. D.,.....	134
Principles and Practice of Operative Surgery. By Stephen Smith, M. D.,.....	291, 426
Richmond District Lunatic Asylum, Dublin, The Schools of,.....	145
Treatise on Diphtheria, etc., Croup, Tracheotomy and Intubation. By A. Sanné, M. D.,.....	135
Vermont Asylum for the Insane, Its Annals for Fifty Years,.....	547

Sanné, A., M. D., A Treatise on Diphtheria, etc., including Croup, Tracheotomy and Intubation,.....	135
Savage, George H., M. D. Syphilis and its Relation to Insanity,.....	323
Schools of the Richmond District Lunatic Asylum, Dublin,.....	145
Scotch Lunatic Districts, Subdivision of,.....	147
Scotch Pensions,.....	148
Scotland, The Insane in,.....	549
Scotland, Twenty-Ninth Annual Report of Commissioners in Lunacy,...	425
Smith, Stephen, M. D. The Principles and Practice of Operative Surgery,.....	291, 426
Spiritualism, Report of the Committee appointed by the University of Pennsylvania to Investigate,.....	296
Spitzka, E. C. Insanity, Its Classification, Diagnosis and Treatment,...	295
Shuttleworth, G. E., M. D. Idiocy and Imbecility due to Inherited Syphilis,	381

State Care <i>vs.</i> County Care,.....	306, 441
State Charities Aid Association, Fourteenth Annual Report of,.....	310
State Charities Aid Association Amendment Bill.....	562
Subdivision of Scotch Lunatic Districts,.....	147
Superintendents and Senior Assistant Physicians of the Hospitals for the Insane in the United States and Canada,.....	583
Surgery, Annals of,.....	548
St. Lawrence State Asylum for the Insane,.....	400, 443, 540
Stearns, H. P., M. D. Classification of Mental Diseases,.....	350
Symmetrical Disease of Corpora Striata, etc.,.....	413
Syphilis and its Relations to Insanity. By George H. Savage, M. D.,...	323
Syphilis, A Case of Insanity Associated with. By Joseph Wigglesworth, M. D.,.....	391
Syphilis. Inherited, Idiocy and Imbecility due to. By G. E. Shuttle- worth, M. D.,	381
Training of Attendants,.....	427
Traumatic Insanity, Eight Cases of Trephining for. By W. B. Fletcher, M. D.,.....	212
Tuberculosis, Bovine,	152
Urethrotomy, Melancholia and,.....	413
Vulpian, Professor, Obituary,.....	156
Wagner, Gärtner and, On the Cerebral Circulation,	411
Wallace, J. M., M. D. Resignation of,.....	155
Weight of the Cerebral Hemispheres in the Insane,.....	417
Wiggington, R. M., M. D. Resignation of,.....	154
Wigglesworth, Joseph, M. D. A case of Insanity Associated with Acute Syphilis,	391
Wisconsin State Board of Supervision,.....	566
Wise, P. M., M. D. Care of the Chronic Insane,.....	170
Wood, H. C., M. D. A Treatise on the Phenomena Produced by Diseases of the Nervous System,, etc.....	131
Worcester, Wm. L., M. D. Cases Illustrative of the Localization of Cerebral Functions,.....	66

AMERICAN JOURNAL OF INSANITY, FOR JULY, 1887.

REMARKS ON SOME EUROPEAN ASYLUMS.

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The following notes, made during a recent visit to institutions for the insane abroad, may prove interesting to those who can not undertake a similar journey. The winter was a rather bleak and cheerless season for visiting the more northern asylums.

HOLLAND.—The Meerenberg asylum, near Haarlem, has nearly nine hundred patients, and they are building for four hundred more. The present structure is quite old, but the perfect spotlessness of the sanded floors, and the immaculate condition of the white walls, bore witness to the proverbial neatness of the nation. The grounds are large and handsome, but not extensive enough for farming. The patients come mostly from Amsterdam, and as there are naturally many handicraftsmen among city patients, the employments for men here consist of tailoring, carpentering, shoe-making, mattress-making, and other similar occupations. The women sew, knit and work in the kitchen and laundry. There are numerous padded cells in the wards, which are unpleasant to look at. The beds in these are of peculiar construction. They are like shallow bath-tubs, over which canvas is stretched. Upon this the patient's mattress lies. The lower part of the bed has immediate connection with the sewer. No mechanical restraint is employed in this asylum. There are no dormitories for more than twenty patients. There are two night watches for each sex, and two others patrol the grounds. The institution is built on the block plan; but back of the older and larger building is a new structure for quiet patients. The entire administration is in charge of a medical head. The director has four assistants and a pathologist. The pathological work done here merits more than passing notice. The mortuary and pathological laboratory occupy a separate little building, and are very complete in every respect.

Autopsies are made on all patients dying in the asylum, and average some eighty in number yearly. The last annual report of the institution contains a forty-eight page description of the post mortems made during the past year, which is very instructive, and shows what careful and painstaking examinations are carried out by Dr. Jelgersma. He reports finding atrophy of the cornu ammonis of one side in each of thirty cases of epilepsy recently studied. For several years the director has had a school for patients, and evenings for singing familiar Dutch folk-songs are great favorites of the patients. The medical treatment at Meerenberg does not materially differ from that of other institutions.

The newest asylum in Holland is that at Vught. It has received patients for a year only, and is not yet wholly completed. The grounds are much broken, rough, unfinished. The plan of the building is mediæval, resembling a cloister or a prison, which is much lamented by the director, Dr. A. O. H. Tellegen. It was constructed, however, by a board of trustees, consisting altogether of laymen. There are now some five hundred patients, but the asylum will ultimately accommodate six hundred and twenty-five. It is built about numerous bare courtyards, into which many curiously arranged cells open, some without windows at all, very much like stalls into a barnyard. But there are few single rooms, the tendency here, as elsewhere on the continent, being to small dormitories, of which the largest do not accommodate more than twenty-five patients, with twenty-four cubic metres of air space for each. The cleanliness of the patients and of everything about the asylum, was as noteworthy here as at Meerenberg, and the indoor occupation of the inmates seemed to be carried out to an admirable degree. The nurses are all Roman Catholic brothers and sisters. There was a generous use of mechanical restraint, especially among the women.

BELGIUM.—I took dinner at the Hotel de l'Agneau at Gheel. Among others at the table was a young Englishman, evidently an imbecile, who had been a patient in this historic village for two years or more, having rooms in the town and taking his meals at the hotel. It was rather a pleasant introduction to the character of the colony to meet one of the patients in this wise. Gheel itself has about twelve thousand inhabitants, and the insane, to the number of some seventeen hundred, are scattered about in this town and many neighboring hamlets. They are all under the

supervision of a director, Dr. Peters, and several assistant physicians. There is an infirmary in the town for one hundred patients, where the sick and any who break out into temporary excitement are cared for; and it is there that the director and one or two assistants live, while the rest of the medical staff reside in various parts of the town. It is well to state here that the worst cases of insanity are not kept in Gheel at all, but are sent to the male and female asylums at Ghent. Dr. Peters was not at home at the time of my visit, but through the kindness of Dr. Cuisenaire, I was shown the patients in private houses in Gheel, not only the best, but the worst, not only the richest but the poorest.

Upon the whole the pensionnaires seemed comfortable and happy, the insane peasants and laborers as well as the barons and counts. But there are unpleasant things to see in Gheel. For the poorest classes the quarters often seemed dirty and unhealthful, yet fully as good as the families which boarded them themselves enjoyed, and doubtless as good as they had ever had before becoming deranged. In the kitchen of one house was a maniacal English woman in a muff. In another house was an epileptic dement fastened in a chair by means of a board across the front. All of the doors were locked in some of the houses, so that we had to knock some time before gaining admittance to inspect the patients and their rooms. It is possible that it is necessary in a town of this kind to lock doors in order to keep people out, rather than to keep them in. In the streets and gardens one meets many patients walking about, going to church, to visit each other, etc., and in less wintry weather there must be a much larger number who enjoy such unrestricted freedom. Dr. Cuisenaire told me that in the past fifty years but two accidents have occurred, viz: forty years ago the mayor of the town was stabbed by a patient with persecutory delusions, and ten years ago a patient holding a child in her arms, suddenly threw it to the ground, killing it. But certainly assault and murder are more frequent than this in other villages possessing a less peculiar population. It would be interesting to learn whether illegitimate births occur among the patients. It seems to me that there is opportunity for vice of this nature. Long residence in the place would be needed to clear up doubt in this matter. But considering all things, every opportunity is here afforded to patients in any degree trustworthy, to enjoy liberty, occupy themselves usefully, and lead a pleasant life. There are no doubt abuses, possibly from a lax use of restraint, from unkind treatment by members of families in which the

patients board, etc. Yet these are, to a considerable extent, remedied by the supervision of competent physicians, and probably do not exceed similar abuses which can creep into some of our best large asylums. Patients in Gheel can attain the utmost limits of freedom compatible with their condition, and relative to their deportment. The tendency here is to individualize cases, whereas in a state of aggregation they are treated and fed "wholesale," so to say.

One is well repaid by a visit to the Hospice Guislain at Ghent. Dr. Ingels, famous as its former director, died not long ago from a dissection wound, and was succeeded by the well-known Dr. Morel. The latter is very courteous to visitors, and took great pains to show me all that was interesting. The asylum was constructed thirty years ago in the "cloister" style of architecture, is for the male sex only, and has about five hundred inmates. The attendants and instructors are monks. The most notable feature of this institution is the number and variety of occupations for patients. Some twenty men were employed in winding thread and yarn on shuttles for the looms. There were twelve looms, six of which were busy at the hour of my visit, weaving linen, checked table cloths and black cloth. In the tailor-shop all the wearing apparel of the establishment is made. In the worst ward great quiet reigned, and nearly every one of the forty patients there was engaged in picking cotton from pasteboard spools; and in another disturbed ward the patients were industriously making paper bags. In the shoe-shop all the foot-wear of the asylum is made and mended. Many were at work in various places, in a forge, carpenter-shop, laundry, butcher-shop, kitchen, and in the garden. A kindergarten for boys under fourteen has been in operation some years; here thirty boys were busy at the time of my visit. There is also a school of music, and a well-practiced orchestra of twenty pieces. The regularly employed number about sixty-five per cent of the population.

The day-rooms are down stairs, the dormitories on the second floor. None of the latter contains more than twenty-five beds. The day-rooms are pleasingly decorated with pictures, crosses, flowers, etc., which are almost wholly of religious character and significance, and most of them contain aviaries. The courtyards have handsome shrubbery and dove-cotes, and the doves are great pets of the patients.

Cleanliness did not seem to be so marked here as in the Holland asylums. In one room for idiot boys the odor was almost unendurable. The laundry and kitchen were not neat.

Mechanical restraint is in use. I noted two men in leather mittens strapped around the waist, and in one room all the patients (eight general paralytics) were sitting close together in a row on stool-chairs, a board across the front and a perpendicular stick between the legs of each, being a device to keep them there.

The medical treatment presents nothing new. This institution has added much to our knowledge of insanity and cerebral pathology. Professor Ingels was an indefatigable worker, and literally immolated himself upon the dissecting table. Dr. Morel is a worthy successor. It is surprising that the superintendent of so large an establishment can find time for so much work. He resides alone at the asylum, having but one assistant, and he a non-resident.

GERMANY.—The Bremen City Hospital has an insane department, with about one hundred and fifty patients in one old and one new building. These two buildings standing together call to mind the contrast between the manner of housing the insane to-day and that of two decades ago—the one gloomy, cheerless, well-barred, prison-like; the other new, bright, with unguarded windows and cheerful curtains.

The single rooms in the new portion had an inviting look. Their windows, with large panes of heavy plate glass, let in floods of sunshine to fall upon the neatly painted walls and linoleum-covered floors. All the wards have large paintings, clocks, curtains, rugs, etc. The attendants here are evangelical brothers and sisters from the training school for deacons and deaconesses at Bielefeld.* The director, Dr. Scholz, is one of the strong advocates of the treatment of maniacal cases with the wet-pack, i. e., enveloping them in a wet sheet and a dry blanket. This is the only form of restraint used, if this can be called restraint. The quietest wards in the female and male divisions have open doors during the day. But the “open door system” I find has very little meaning when the asylum grounds are surrounded by high walls or iron fences, at whose gates keepers are always stationed.

The Göttingen asylum was built over twenty years ago in the “cloister” style of architecture, as its director, Professor Meyer, is pleased to term it. He told me that in the middle ages, when the insane began to be taken from dungeons, jails, etc., and put in

* See “The Epileptic Colony at Bielefeld,” *New York Medical Record*, April 23, 1887.

buildings by themselves, the deserted cloisters, convents, monasteries, were first appropriated for the purpose; and when, subsequently, new structures were required, the English began to build upon the same plan as the establishments already in use. Hence the cloister style of asylum architecture, afterward copied over the continent from the English. Since my first visit to the Göttingen asylum, five years ago, additions have been made, but in the shape of separate villas, Professor Meyer being a strong advocate of the villa system. There are some four hundred patients, men and women, and the chief occupation for both sexes is farming. Porcelain stoves are the chief means of heating; but in several places indirect radiation is resorted to. Ventilation is wholly by windows.

No restraint is used. Professor Meyer expressed himself as strongly opposed to the use of the wet-pack in maniacal cases, saying that it had no remedial effect, and seemed to him only an unpleasant form of restraint. Maniacal cases are treated here by being put to bed in a small ward (not isolated) and by the administration of potassii bromid. in large doses, amounting sometimes to twenty-four grammes daily, occasionally even eight grammes at a dose! Cases that are very destructive and filthy he places in an isolated room without clothes, with a large pile of sea-grass for a bed. He claims for this that it forms a soft, comfortable, very clean and indestructible bed.

The new villas completed and undergoing construction are for twenty to twenty-five patients each, are two stories high, without guarded windows, with dormitories up stairs and day-rooms below.

The largest asylum in Germany is at Hildesheim with eight hundred patients. It is antiquated. Near by is Ilten, where about one hundred insane are now boarded out on the Gheel plan, the only colony of the kind in Germany.

The asylum at Marburg was built in 1876 on the villa plan at the suggestion of Professor Meyer of Göttingen. It was destined for the reception of two hundred and fifty curable cases, but this system of separation failed as it has done in New York, most of the patients being chronic and incurable. Indeed, some twenty pauper chronics of each sex, who are good workers, are purposely retained here for farm work, which is the chief employment. Women have sole charge of the kitchen and laundry. The washing is done by hand.

The patients occupy some twelve different buildings, while the

kitchen, laundry, stables, cottages for officers, etc., increase the number of buildings to about twenty-five, nearly all of which have their own pretty gardens separated by hedges. Two classes of patients are received as in our own State asylums, viz., private and pauper, but the two are not indiscriminately mixed. The pay patients occupy buildings by themselves. All of the houses are clean and neatly furnished, having plants, curtains, pictures, birds, etc. The presence of a pair of monkeys (*genus Macacus*) in one ward in a large cage, amusing to look at, reminded me of the advice of a physician to a hypochondriacal clergyman to "buy a monkey." He did so and recovered from his morbid condition through the interest he took in its antics.

The heating is mostly by means of porcelain stoves, in a few single rooms by indirect radiation. The ventilation is from the windows. The sewage irrigates a meadow lower than and somewhat removed from the asylum, and upon the land thus treated rye grass is grown. This method never gives them any trouble. The most important features of this institution are the splendidly equipped chemical and pathological laboratories, and one needs but to cite the first assistant, Dr. Franz Tuzcek's work on the Pathology of General Paralysis as a witness to the quality of the research carried on.

As regards treatment in Marburg, the acute maniacs are put to bed in a room together, sometimes as many as ten or fifteen cases, but when too violent are isolated. Paraldehyde and urethran are favorite hypnotics. Lying in bed and feeding well are considered of chief importance in such cases as well as in melancholia. Ten or fifteen melancholiacs are also in a ward, together with two day and two night nurses. Various articles of food are kept in cupboards in these rooms, so that instant advantage may be taken of a desire for food on the part of a patient. Feeding with a tube is eschewed in this asylum. A patient has been allowed to go as long as thirty days without eating. Patients are weighed every week, and scales constructed for this purpose are in use in each building. The only form of restraint practiced is the fastening of the bedclothes at the sides of the bed. Opium is never administered in cases of melancholia. The houses for the laboring patients have open doors. There are bars to the windows of the single rooms only. Other windows have iron sashes and small panes of glass.

The Rhine Province has five asylums, all constructed at about the same time, and all finished some ten or more years ago. I may be pardoned for making here a brief historical survey of the

care of the insane in this province; it may serve as a valuable commentary on the policy of our own State. When, in the beginning of this century, people everywhere awoke to the wrongs done to the insane by confining them in jails, workhouses and poorhouses, one of the first efforts toward reform in the Rhine Province was to establish a hospital for the curable insane. At the instigation of Dr. Max Jacobi, the old Abbey of Siegburg was purchased by the government, in 1823, and transformed into an institution for two hundred patients of both sexes. Various evils developed in the course of time, the building began to fall into ruin, the wards became enormously overcrowded, and the chronic and incurable insane accumulated. Therefore the provincial legislature appointed a commission, in 1864, consisting of six of their number who were to choose and act in concert with a qualified physician and an architect, to investigate the condition at that time of the insane, and the outlook for their future care. They examined into the very unsatisfactory state of affairs, they visited asylums in other parts of Germany, they saw the necessity of geographically districting the province, they recognized the irrational nature of the system of separating the curable and incurable insane, and they embodied their views on these subjects in a very instructive report to the provincial legislature, in 1865. The *first* of the series of eight resolutions presented by this commission was in substance as follows:

“In each of the five government districts of the Rhine Province, viz.: Düsseldorf, Cologne, Aix-la-Chapelle, Coblenz and Trier, shall be built a *mixed asylum for the curable and incurable insane.*”

The italics were theirs.

It is now more than twenty years since they here wisely put an end to a system which is unfortunately still the policy of the State of New York. But other provinces of Germany exhibit a similar historical sequence in the care of the insane. It would be well if those interested in the farther continuance of the old system in New York, would read *Die Provinzial-Irren, Blinden und Taubstummen-Anstalten der Rheinprovinz, etc.*, (Düsseldorf, 1880), from which they will be able to learn that more than forty years ago the establishment of asylums separating the curable and incurable insane was almost wholly abandoned in Germany.

The once famous asylum at Siegburg has been put to new uses since 1878, when the last insane were removed from it. I had time to visit but one of the five new institutions of the province,

viz.: Grafenberg, near Düsseldorf. It is constructed on the pavilion plan, consisting of some fourteen buildings connected by corridors, which are occupied by some five hundred patients. A short distance away is an agricultural colony, where forty patients reside, having open doors, etc., in fact entire freedom. No restraint is used in this asylum. There are no night-watches anywhere. The attendants sleep in the same dormitories with patients and are expected to get up at night when it is necessary for some reason to see to patients. There are a few old-fashioned cells such as we should not build now-a-days, with strong iron window frames and sashes, and glass an inch thick. Women have entire charge of the kitchen and laundry. Dr. Pelman, the director, uses the wet-pack in some cases of excitement, but administers very few hypnotics.

The heating is by stoves. The sewer system is poor, the sewage being carted to neighboring farms. There was a bad odor in the water closets, and everywhere was a certain lack of neatness and cleanliness. Four classes of patients are received, viz.: paupers, and those paying sixty cents, one dollar and two dollars, each per day, respectively, accommodation and food differing for each class.

The University of Strassburg has made great strides since the annexation of Alsace to Germany. Among its many new and imposing structures for various departments, one of the most important is the Clinic for Psychiatry, in charge of Prof. Jolly, which receives cases adapted for instructing the students, such as the different forms of insanity, both acute and chronic, and epilepsy, and some other nervous diseases. From here the surplus passes to the large provincial asylum, Stephansfield, near by. The Clinic is elegantly fitted up, with five small wards for each sex, modern systems of heating and disposing of sewage, telephones and electric bells in every department, etc., etc. Prof. Jolly is a strong advocate of the therapeutic advantages of electricity, hence there is a great supply of electrical apparatus, of every description, especially in the clinical amphitheatre. It is claimed here that the galvanic bath has excellent effect in mild cases of melancholia. The cells for isolating cases are rather prison-like. They have very solid iron window-sashes, with small panes of glass, and devices (to be operated without entering the room) for lowering outside window blinds, raising the upper window sash, and for inspecting the interior—machinery, which to say the least, reminds one more of a menagerie than a hospital. In the filthy wards the so-called

Heidelberg mattress is in use. This is merely a thick hair mattress with a hole in the middle, well covered on every part with rubber cloth. An excellent pathological laboratory is connected with this Clinic, and with von Recklinghausen's laboratory, but a few steps away, we should expect the Strassburg school in time to greatly add to our knowledge of cerebral function and pathology.

The asylum at Munich, with six hundred and twenty-five patients, of which the late Prof. Gudden was the distinguished director, is well worthy of a visit, and his last report, embodying the result of his whole administrative experience, very worthy of perusal. In the pathological laboratory, as a monument to his untiring industry, is an enormous collection of microscopic sections of nerve and brain, as well as large numbers of brains of men and lower animals. Prof. Gudden was cut off in the midst of his work, and although he had already attained eminence, his most valuable studies are incomplete, unfinished.

The asylum lies in the outskirts of the city. From it on the one side are seen the long rows of monotonous houses, on the other the distant ragged peaks of the Alps across the plateau. The patients are all in one building. All the wards have handsome oak floors, and walls brightly painted with colored "silicate" paints. The patients' employments are those common to all institutions; in addition also instruction in the various branches of school learning, and in drawing, music, singing and gymnastics. Restraint is used to about the same extent as in most American asylums. As regards treatment, they think much here of the wet-pack for acute mania, and prolonged warm baths for melancholia. They rarely use hypnotics of any kind. They claim to have seen bad effects from the opium treatment of melancholia.

Another Clinic for Psychiatry was built in Leipzig some three years ago, and is therefore older than that at Strassburg, and is not so neat and clean, nor so well-equipped for work. It is in charge of the famous Prof. Flechsig. On the day of my visit there were some one hundred and thirty patients. This Clinic overflows into the Alt-Scherbitz and other asylums in the neighborhood of the city. Considerable restraint is in use, one form being a suit laced up in the back, with sleeves closed at the ends and sewed fast to the sides. I saw here for the first and last time in my travels a bed devised by Dr. Günz, of Thonberg, an iron bed with an iron framework over it, around which is woven, in wide meshes, straps made of linen, having a door, and looking very

much like a cage. Although a dangerously suicidal or violent patient might be preserved in such a contrivance, it is not agreeable to look at, and it is less effectual and more terrifying to a patient than camisoling and strapping in bed. In one ward were several padded cribs (without covers of course,) for bad cases of epilepsy. The opium treatment of melancholia is being thoroughly tested here at present, in order to decide once for all upon its merits. The prolonged warm bath is also used for a half to two hours before bedtime.

A few miles from Leipzig is the asylum of Alt-Scherbitz, which to me seems in the van of all on the cottage or village plan. It is a newer, cleaner, more modern and more perfect Gheel. Those who like the cottage system for asylums for the insane will find here their *beau idéal*. The government purchased here a farm of some three hundred hectares of land with all the buildings (an old *Rittergut*). Eight two-story villas were then built, quite near together, separated by hedges, and each having its own little garden. The central one of these is the administration building, about which are grouped the other seven villas for the newly-admitted, for the noisy, for the sick, and for the cases requiring watching, of each sex. Past this group of cottages winds a highway, on the opposite side of which are the kitchen, laundry and dairy, with which dormitories are conveniently connected for the female patients who are here employed; and near these the stables and granaries—all of which buildings separate two elevated and fine sites, upon which stand handsome two-story villas, pleasantly grouped, of different architecture, commanding pretty views of the Elster river, flowing in its broad, fertile valley, three for women on one side and four for men on the opposite. Each of these accommodates twenty-five patients, and cost on an average eighteen thousand marks (four thousand five hundred dollars). Close at hand is the farm hamlet, ten of whose houses are occupied by patients. There are two to eight patients in each, and they have their own keys and take every care of their dwellings themselves. In addition to those already described there is one large building, accommodating a great number of chronic, quiet women. The greater part of the food is drawn to all of the houses in a wagon constructed for the purpose. The heating is by porcelain stoves. Everywhere bedrooms and dormitories are up stairs, the day-rooms below. The disposal of sewage is simple and apparently efficacious. Two men with a wagon are employed all day, visiting every building twice daily to remove the closed receiving

tubs under the water-closets, and empty them far out on the farm.

Farming is of course the chief employment, but there are blacksmith, shoe and carpenter-shops, and, not the least interesting feature, a brickyard. This last has proved so useful that it is to be enlarged. They have not only made all their own brick and tiles, but they sell large quantities. All the occupations common to other institutions of the kind are in vogue here. There is a large theatre in a separate building, where dramatic entertainments, concerts, dances, etc., are given, joined in by both sexes. A bowling alley is of course to be found here, as in most German asylums. In the Elster river, which is a small stream from six to twelve feet deep, a swimming bath has been constructed.

The freedom of patients is very great, and there is no depressing aspect about the colony at all, nothing to constantly remind outsiders and insiders of the usual coercive nature of such institutions. All of the villas, for both men and women, and all of the dormitories connected with the dairy, the laundry, the kitchen, the workshops, and all of the houses of the little hamlet, have unlocked doors and unguarded windows. There are no bars on any windows in the whole establishment. The freedom is of course less, the watching greater, in the group of buildings for new, dangerous, suicidal and disturbed classes. The number of nurses in proportion to patients is in the ratio of one to ten. They live with the patients, and sleep in the dormitories with them. Doors and windows are locked at night. In the few cells for isolating acute maniacs there are inside blinds for darkening the rooms. There are no regular night watches employed; but in the reception building for each sex the day-nurses take turns watching at night, one from 7 P. M. until midnight, and another from midnight until 5 A. M., for which they receive extra pay.

On the day of my visit there were five hundred and thirty patients.

AUSTRIA.—The insane asylums are rather disappointing in Austria, especially so (*mirabile dictu!*) in Vienna. In the first place, Prof. Meynert has his clinic in the enormous and antiquated *Allgemeines Krankenhaus*, and in his department there are about one hundred and forty patients. With the exception of the few apartments for private cases, everything has a mediæval aspect. In the cells the windows are near the ceiling and heavily barred. Restraint and seclusion are freely employed. There is no doubt that the patients in this as well as in all other divisions of the

great Vienna hospital are regarded as so many contributors to the advancement of medical learning, but have little consideration as individuals of the human race.

Within a few minutes' walk of the *Allgemeines Krankenhaus* is the large *Landes-Irrenanstalt*, built for seven hundred lunatics, but into which nine hundred are crowded. It is a dreary asylum. There are very few single rooms, dormitories for about ten being most common. The cells are like those of a penitentiary. I noticed women nurses in the worst male wards, where men were destructive, denuding themselves, etc., but learned that they were the wives of the male attendants on the same wards. The apartments for private patients are elegant.

There is no great amount of work done here, but I was interested in one shop, where children's toys of every variety are constructed by patients, and where fancy wood-carving and sawing, and straw mat-making are carried on. No restraint is in use in this asylum. Prof. Leidesdorf has an excellent Clinic for Psychiatry here.

The private asylum at Ober-Döbling, a suburb of Vienna, under the charge of Profs. Leidesdorf and Obersteiner, has some sixty patients, is elegantly fitted up, has beautiful grounds overlooking the city and the neighboring mountains. It is equal to private asylums in other parts of the world.

Four miles from Budapesth, in the midst of innumerable vine-clad and villa-covered hills, is the Leopoldfeld Asylum, with seven hundred and fifty patients. This was originally designed as the hospital for the curable cases of all Hungary, while the incurable were provided with an asylum on the opposite side of the city. But both institutions became in the course of time mixed asylums, and Leopoldfeld is now much overcrowded, and chiefly, as a matter of course, with chronic and incurable cases. Everything seemed neat and clean. No restraint is used among the men, but occasionally among the women. The occupations for the patients do not differ from those of other asylums. The system of heating is quite modern—indirect radiation—but the ventilation is wholly by means of windows.

The newest Austrian asylum is at Dobran in Bohemia, but the severity of the winter weather during my sojourn in Prague, unfortunately prevented my visiting it.

ITALY.—In a gondola one reaches the island of San Servolo, with its asylum for six hundred men, and the island of San

Clemente with its asylum for one thousand women—an hour's ride from the Piazzetta in Venice. Through the former I was shown by an intelligent monk, through the latter by the portier, for the directing physicians do not reside in the institutions, and were absent at the time of my visit. I was surprised at the beautiful, clean, polished mosaic floors, brightly painted walls, and the generally cheerful appearance of the interiors of both. In Italy, fortunately, windows can be open all the year round, for these form the only means of ventilation. San Clemente has dormitories with over one hundred beds, and the rooms smelled sweet. The buildings are of course absolutely fire-proof. Much restraint seemed to be used, and the patients were crowded together in large numbers in small day-rooms. The chief employments are garden work for the men, and sewing and weaving for the women. Monks and nuns are the nurses in charge. The noisy classes of patients were exceedingly noisy everywhere. At San Servolo I was astonished at the great albums of photographs of patients, and at the very complete and scientific histories of cases required and recorded. Every patient is photographed on admission, one photograph being placed in the history and another in the album. There are already many hundreds in the collection. The skull of every patient admitted is very accurately examined and measured, no less than fifteen different measurements being taken according to the best Italian craniometrical system, and recorded in the history.

I have before me the portly volume which is the report of the Manicomio di Roma, the insane asylum of Rome, for the septennium ending 1880. On the day of my visit there were over one thousand patients of both sexes. The old part in the Via Lungara, on the bank of the Tiber, is composed of a number of mansions, probably several centuries old, which, though clean, are not well adapted for a good asylum. The patients were crowded together in large numbers in diminutive day-rooms, were very noisy, and many were in restraint, wristlets, camisoles, straps around the ankles, and in restraining chairs. There are small airing courts without views. As the buildings are immediately contiguous to the street, all the windows of the street side were heavily ironed and darkened, making the interior very gloomy and dismal. After being conducted through this joyless labyrinth, I was escorted over the Porta San Spirito through a passageway leading to a part of the institution which is in extreme and delightful contrast to that lying along the Tiber. It is in fact the

larger portion of the asylum, and lies upon a sunny hill, close to St. Peter's, commanding wide views of all Rome and the Campagna, even to the remote peaks of the Appenines. This is the *sistema villagio*. The government has purchased the Villa Barbarini for the women, and the adjacent Villa Gabrielli for the men. In addition to the numerous fine buildings upon the grounds at the time of acquisition, several new structures have been added; so that now I doubt if anywhere can be found a more agreeable example of the "village," or "cottage," or "villa system" than this portion of the asylum of Rome. Many of the buildings still remind one of the wealth of their former owners, with their marble stairways, marble tables, marble floors, mural frescoes, etc. Although it was midwinter, the grounds were all abloom with flowers, fountains were springing, the grass and trees were green, and patients were busy in the vegetable gardens. One of the larger buildings is occupied by one hundred and fifty sewing women. In another many women were at work with numbers of spinning wheels and about a dozen looms. At the Gabrielli grounds are over two hundred and fifty men. Here are the tailor, blacksmith, shoe and carpenter-shops, and more noteworthy still a large establishment for the making of straw goods of every description, such as baskets, rugs, matting, brooms, straw hats, etc., etc. The men are supervised by Belgian monks and ordinary Italian orderlies; the women by French nuns and common female attendants.

Professor Alessandro Solivetti, who occupies the chair of Psychiatry in the University of Rome, has his laboratory here, and kindly showed me his collections of skulls, pathological specimens, instruments of precision, etc., with which it is well supplied. A notable feature is the splendid library of medical books in all languages belonging to the institution. The hydropathic department, with its Turkish baths, varieties of douches, and apparatus of all kinds, is more complete than any I have seen elsewhere.

FRANCE.—A few miles from Paris on a series of terraces rising high above the picturesque banks of the Seine lies the Maison Nationale de Charenton, an asylum on the old cloister plan, with numerous courtyards, and having on the day of my visit some seven hundred patients of both sexes. It was founded by Esquirol, whose bronze statue stands in one of the courts. The interior is very clean and handsome. The patients were quiet and seemed to enjoy a great degree of comfort. But I was dis-

appointed at the meagre amount of work done. There were no shops. The only employment outside of ward work seemed to be a small amount of gardening done by the men. I was astonished at the amount of restraint used, having thought that the labors of Pinel would be still remembered so near the scene of the emancipation of the insane; but I counted no less than seventeen women in one room who were all either strapped to chairs or camisoled, or in wristlets with straps!

L'Hôpital de la Salpêtrière is the chief asylum for women in Paris. There are here some five thousand patients, not all of course insane, for it receives also pauper women in old age and when suffering from nervous diseases. The buildings are very antiquated and dismal, and one's interest centres here more especially in the clinic of Professor Charcot, whose recent studies in hypnotism, suggestion, transfer by magnets, hysteria, etc., form the themes of his present magnificent discourses.

The asylum for men, Hospice de Bicêtre, was founded several centuries ago. It has at present a population of three thousand two hundred, of which only one thousand are insane. While there is little that is noteworthy or pleasing in other departments, that for young idiots and epileptics, who number three hundred and forty, is entirely new and exceedingly interesting in every way. Professor Bourneville is in charge of this division, and conducted by him I had opportunity to see and admire its excellence of plan, care, employment and instruction. There are a number of one-story pavilions connected by corridors. The masonry both in the houses and outside is rounded off where patients would be apt to fall and injure themselves. The sewer system, heating and ventilation are modern and complete. The isolated building for cases of contagious disease is particularly noteworthy. In this the rooms for scarlatina, measles, etc., are entirely separated by partitions whose upper portions are of glass, and open separately upon a veranda, whose roof is wholly of glass. There are no angles in the rooms where disease germs may lodge, every corner where wall meets wall and ceiling being rounded so as to be easily cleaned and disinfected. The point of greatest interest, however, in Professor Bourneville's division is the various schools, playrooms and workshops, for the development of their intellects, where most astonishing progress is made by the boys. Everything is arranged so that the inmates may learn, even to the labeling with their names of every tree, shrub and flower in the pretty court-yards. Photographs of cases are taken as they are admitted,

and afterwards during the several years of their stay at regular intervals, showing the development with time of bright living faces from those once vacant and expressionless. The employments are gardening, school, kindergarten, games, blacksmithing and iron work, basket-making, carpentry, and sewing and tailoring. The large number of boys with the remains of infantile paralysis and hemiplegia sewing away in spite of defective arms and fingers, was surprising.

ENGLAND.—A limited furlough permitted me to visit but a few of the many asylums in and about London. No one would miss seeing the historic Bedlam—Bethlehem Lunatic Asylum—now in charge of Dr. George H. Savage. It stands smoke-begrimed in the midst of London, surrounded by a high brick wall; its grounds divided into several almost grassless and uninviting airing-courts. There are two hundred and eighty patients of both sexes, mostly recent cases, and all belonging to the “middle class,” as required by the original charter of the hospital. Its interior has everything that one could wish for in the way of comfortable and easy furniture, open fire-places, busts, pictures, birds, books, newspapers, plants, games, carpets, etc., etc. In the women’s wards, the panels of many doors have been beautifully decorated by patients skilled in the art of painting flowers. Restraint is rarely used, the camisole in surgical cases only. I saw about six cases wearing locked mittens. A few patients are paroled to visit the museums, theatres and libraries of the city. Dr. Savage employs the shower-bath, in an average of six cases daily, with great benefit, especially in young, excited girls. Massage is also used successfully in appropriate cases. The employments are few. Dr. Savage, with one assistant and two resident medical students, has charge of the medical department, while the business administration is in the hands of a non-medical officer. There are, I am told, only three or four asylums now in Great Britain, where the unsatisfactory system of having two heads is in vogue. These are Bethlehem, Hanwell, Colney Hatch and Banstead.

Colney Hatch, the Middlesex County Asylum, is but a short ride from London. It is, perhaps, the largest asylum in the world, having, on the day of my visit, two thousand four hundred patients of both sexes, all of whom are paupers from London. The large grounds are entirely surrounded by a high brick wall, and the patients are all in one building, behind which are numerous brick-walled airing-courts. In front are wide lawns, with shrubs and trees in abundance. A modern system of heating is used. The

ventilation is almost wholly by means of the windows, which are numerous and large. The employments are few and not extensive; gardening and farming, a few shops, the kitchen and sewing-rooms being foremost. Only one person was in restraint, and this was for a Colles' fracture. Restraint is wholly limited to surgical cases. Seclusion is rare. The attendants are in the ratio of one to ten disturbed, and one to twenty quiet patients. Over one-half of the attendants live off the grounds, in their own homes, with their families, a happy system, which ensures long keeping and great contentment. The wards were all very comfortable and homelike. The largest dormitory had one hundred and six beds. In the way of amusements the patients have associated dances, concerts, theatres, football, etc.

The administration is of an obsolete character. There is a steward in charge of the business of the institution, while a physician is the medical head of each of the two divisions for men and women. A redeeming feature of the system here is, that the hiring and discharging of attendants is a prerogative of the physicians. Each medical superintendent has two assistant physicians, making in all one physician for each four hundred patients, which, in my opinion, is about one-fourth of the number that ought to be provided. Dr. Seward, who has charge of the male division, and to whose courtesy I am indebted for what I saw and learned of Colney Hatch Asylum, informed me that no scientific work is done here at all. There is no time for it.

I was delighted at having an opportunity to inspect the newest and latest asylum in Great Britain, viz.: that at Cane Hill, in the county of Surrey, about an hour from London. This was built by the architect to the Commissioners in Lunacy, and is supposed to embody, in structure and administration, the most modern English ideas.

Just as Alt-Scherbitz, in Germany, seemed to me the best type of the village plan of caring for the insane, so Cane Hill stands in relation to the system of providing for this class in large numbers in one building. Radically distinct as the two so-called "cottage" and "block" systems are, it is not strange that in each of these typical institutions there should be a slight leaning toward the system of the other; for doubtless the ideal asylum, when it is built, will be one which shall have assimilated what is best in both plans. At Alt-Scherbitz is already one large pavilion, with a great number of demented women in it; at Cane Hill a dozen male patients live with the farm bailiff, the same number with the gardener, and a

dozen women occupy a small cottage, in charge of a married nurse. But the remainder of the eleven hundred Cane Hill patients are housed in one labyrinthine building, which is to be extended until it shall accommodate two thousand. It was first opened for the reception of patients in December, 1883. There are about one hundred and fifty acres of land. The asylum stands on a height commanding wide views of the beautiful Surrey hills and valleys. The water is supplied by a deep well, whence it is pumped into a lofty tower and from there distributed where needed. The sewage is disposed of in the same familiar manner as at Croydon near by, eight acres of Italian rye grass being effectually irrigated. The superintendent, Dr. Moody, is well pleased with this plan. The heating is by hot water coils, supplemented by open fire-places, which are protected by screens. The ventilation is chiefly by windows, which in so mild a climate as England can usually be kept open at all seasons; but other means are provided, such as openings near the floors, directly through the walls, a foot or more square, protected by wire screens. The chapel and recreation hall are each very handsome, and have a seating capacity each of eight hundred. I have seen no other asylum where the wards present so much diversity of size and form. The air-space for each patient is fifty square feet, superficial area, and about seven hundred cubic feet in the dormitories; forty square feet, superficial area, and about five hundred and fifty cubic feet in the day-rooms; while some of the single rooms have over twelve hundred cubic feet.

No window in the institution is barred. Windows open about five inches at top and bottom, and are controlled by locks, so that they can be wholly opened when the rooms are unoccupied. The sashes are of white pine. The window-panes are 6x14, and there are fifteen such panes in each lower sash, which figures show the relative size of the windows.

The wards have pictures, plaster figures, fern cases, aquaria, chinaware, birds, curtains, newspaper slopes, bookcases, plants, mirrors, easy chairs, antimacassars, etc., etc., everywhere in the disturbed as well as in the quiet wards. The floors were adorned with linoleum, of bright and variegated patterns. The perfect quiet and order of the wards were to me very impressive. All the nurses, both male and female, were in neat uniforms. No restraint of any kind, nor seclusion, has been used since the opening of the asylum. There are six night-watches for each sex, whose visits are recorded hourly in the superintendent's office by means of an elaborate electric system.

The amusements are all that are common to other asylums. The usual employments are in vogue. In spite of the small size of the farm some three hundred men find daily out-door occupation. The women work in the laundry, kitchen and sewing-room in large numbers. The superintendent has but two assistant physicians. But still some scientific work is done. Autopsies are made upon two-thirds of the cases that die there. Every patient is photographed on admission and the photographs pasted in the case-book.

Every precaution is taken against fire, even to the organization of a fire drill for the male attendants under the direction of a member of the London Fire Brigade.

MEMOIR OF JOHN PERDUE GRAY, M. D., LL. D.*

BY JUDSON B. ANDREWS, A. M., M. D.,
Superintendent of the State Asylum for Insane, Buffalo, N. Y.

Dr. John Perdue Gray, the subject of this memoir, died at Utica, New York, on the 29th day of November, 1886, at the age of sixty-one years. Of the circumstances attending his death we make this brief note.

The initiatory cause of his final illness, was the result of an attempt made by an insane man to assassinate him, in March, 1882, immediately upon his return from Washington at the conclusion of the trial of Guiteau for the murder of President Garfield. The bullet passed through his face, under the floor of the nose, paralyzing some of the nerves of the face and mouth, and producing stenosis of the nasal passages, which seriously interfered with his breathing. It also caused a neuralgia, from which he was, for a long time, an almost constant sufferer. This injury, with the nervous strain and responsibility of the protracted trial, combined with the continued performance of the duties of his position in the asylum, perceptibly impaired his health, and were powerful factors in producing the fatal results.

In January, 1886, the Board of Managers of the asylum gave him a leave of absence for six months. A portion of this period was passed in the south, and the remainder in a foreign tour, undertaken in the hope of improving his health. He returned in October, seemingly benefited by the change, and again resumed his labors, but under peculiarly trying circumstances. Early in November business called him to Baltimore, whence he returned, much prostrated, and suffering from a recurrence of the disease which was so soon to prove fatal. From this time it was evident that little hope could be entertained of his recovery. He slowly failed from blood poisoning, induced by disease of the kidney, and died in uræmic coma.

It is not our intention to give a full sketch of his life, but only such facts as may indicate the direction and extent of his labors, and the salient points of his character.

Dr. Gray was one of nine children, and was born on the sixth

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

of August, 1825, at Half Moon, Centre County, Pa. He was educated in the common school, in Bellefonte academy and Dickinson college, and received his medical degree from the University of Pennsylvania, in the class of 1848. After a period of two years' service in the Philadelphia hospital he was chosen, on account of his qualifications and ability, the junior assistant in the State Lunatic Asylum, at Utica, New York. He passed through the higher grades of second and first assistant, and in July, 1854, was elected the superintendent of the asylum. At the early age of twenty-nine years he was thus placed in a most responsible position, at the head of what was then the largest asylum for the insane in the country. He became the successor of Drs. Brigham and Benedict, whose skill and ability had given the Utica asylum an enviable reputation. This Dr. Gray not only sustained, but widely extended, by improving the old and originating new measures of administration.

Accepting unreservedly the view that insanity was a physical disease, the medical care of patients assumed the highest importance, and the institution was made more completely than ever before, a hospital for the nursing and care of patients as sick people. The influence of the predominant idea was felt in every part of the asylum.

To the strictly medical treatment of insanity he gave special consideration; the medical history of patients was more fully sought out and recorded, and the resources of the pharmacopœia were employed with a belief in their efficacy in this, as in other forms of disease. The moral treatment, by employment, amusement and mental occupation was early given a prominent place. One of the methods introduced by Dr. Gray was the establishment of the *Opal*, a paper contributed to and published by the patients in the asylum. This was continued until the third issue of the tenth volume, and proved of great interest and value to the patients, and was also a source of revenue. Its exchanges reached as high as three hundred newspapers and periodicals annually; it added several hundred volumes to the library, and hundreds of dollars to the amusement fund for patients. His labors were always in the direction of progress, both in material improvement and administration, as well as in the treatment of patients. The organization, making subordinates individually responsible to heads of departments, and these in turn to the superintendent as the highest authority, resulted in improved order and discipline and increased efficiency. The Utica asylum, under his control,

became the model for many of the institutions subsequently erected, and later, a school of instruction, which has furnished a larger number of men equipped for the specialty than any other asylum in the country.

Early in his career as superintendent, and while most men would have been fully occupied with the details of management, he enunciated the principles which have since largely guided the State in the care of the insane. In the resolutions passed by the Superintendents of the Poor, in 1856, we recognize his hand. These were, that the State should make ample provision for all of its insane, who were not in condition to reside in private families; that none should be cared for in any county poor and almshouse; that the proper classification demanded for the care of the insane could only be secured in establishments constructed with special view to their treatment; and finally, that the curable and incurable should not be cared for in separate institutions. In accordance with these views, he urged the erection of two State hospitals for the insane, so located, that, in conjunction with the Utica asylum, they would most fully meet the needs of the people of the State.

In the discussion of the question of separate institutions for the acute and chronic classes of the insane, which excited deep interest in the profession, Dr. Gray bore a notable part and one which gave him great prominence. He maintained then, as always, that it was the duty of the State to provide for all of the insane the best medical care, and to remove them from the county poorhouses to asylums properly equipped with every means to promote recovery. Although overruled by the establishment of asylums for the chronic insane, he lived to see his plans carried out in the erection of the Hudson River Hospital at Poughkeepsie, and the Buffalo State Asylum at Buffalo, to accommodate the patients in the eastern and western divisions of the State respectively.

Another movement in which Dr. Gray was identified as the originator and which he carried to a successful issue, was the removal of children from the poorhouses to the various Orphan asylums, and their support in them at public expense. This reform, first inaugurated in Oneida county, has been adopted in the other counties of the State, and has been of inestimable benefit in rescuing children from the association and degradation of life in the poorhouses, and giving them the advantage of training and education, which has made valuable and independent citizens. This philanthropic work entitles him to rank as a public benefactor.

The separation of the convict and criminal insane from other patients, and treatment in an institution constructed with special reference to their isolation and safe-keeping, was largely, if not entirely, due to the efforts of Dr. Gray. For several consecutive years in his annual reports, he called the attention of the legislature to this important subject, and to this added his personal influence with those in authority. His appeal was at last successful, and resulted in establishing the Criminal Asylum at Auburn, of which he was appointed one of the commissioners in locating and erecting the buildings, and afterwards served in this capacity for several years. The wisdom of this action has been fully sustained, and the example has been followed by other States where the numbers of this class warranted the expense of their separate maintenance.

Subsequently he was made one of the commission to locate both the Willard and Buffalo Asylums, for the latter of which he furnished the plans, and was one of its Board of Managers until it was in full operation.

The subject of the causation of insanity has always received the careful consideration of alienists. In the asylum under Dr. Brigham, and for some years under Dr. Gray, the two classes of causes, moral and physical, were recognized as productive of the disease. The moral causes were given a largely predominating position, and included all of the cases in which there had been a history of any emotional excitement or disturbance, while to physical causes were attributed only the small number of cases which were the result of injuries or deformities of the head and like material influences.

Upon more prolonged observation and reflection Dr. Gray became convinced of the incorrectness of this theory and practice, and satisfied that moral causes alone were not sufficient to produce disease. He believed that it was only when the physical health was affected that insanity resulted, and that this change was really the cause of the emotional disturbance. From this time forward he regarded physical causes only as producing insanity, and recorded none but them in the tables of causation. This was deemed a most important step, as it gave the first place in treatment to therapeutic measures and divorced the subject more fully from the influence of the metaphysical theory that insanity was a disease of the mind. "Rest, nutrition, medication—could then be presented in truth, as the relief of sorrow." Insanity, a physical disease due strictly to physical causes, was one of the distinctive features of his belief and teachings.

Dr. Gray was the first in this country to recognize the importance of and to introduce special investigation into pathological conditions existing in insanity, and to the Utica Asylum belongs the credit of having the first special pathologist appointed on its official staff. This course has been, not only fully endorsed by the specialty and profession, but such interest has been created in the subject that several asylums have now such an officer regularly appointed and at work in this line of research.

However great the success and credit, Dr. Gray deservedly gained for his labor in the directions already mentioned, it was in the field of medical jurisprudence, as an expert in insanity, that he attained the greatest triumphs of his life. Beginning with the Parish will case and the trial of Eyler for murder, one of the first in which epilepsy was pleaded as a defense, his course is fairly marked out by recalling the list of prominent trials throughout the State. A few of these are the trial of Heggie, of Buckhout, of Ruloff, of Walworth, of Montgomery, of Dillon, of Gaffney, of Waltz, of Mancke, for murder, and the Vanderbilt and Fillmore will cases. In behalf of the general government during the war, he presided at the trial of Dr. Wright, of Norfolk, Virginia, for the murder of a lieutenant of colored troops, and was a witness in the case of Stewart tried for poisoning a fellow soldier in the recruiting camp at Elmira, and of Payne, one of the assassins of President Lincoln. He was many times appointed a commissioner by the various governors of the State to whom a final appeal had been made for executive clemency. His aid was often sought by prosecuting officers and by the friends of the accused when there was a suspicion of the existence of insanity. On whatever side his services were employed, his testimony was true to his convictions of right, and always carried with it the force of being truthfully and honestly given. No imputation of being influenced by any unworthy motive was ever cast upon his evidence. He resorted to no subterfuges, clothed no mere theories in the garb of science to excuse crime; yielded to no clamor, but always took his position and sustained himself upon the principles deduced from his broad knowledge and vast experience, and consequently, his opinions had the utmost weight with the judge, the jury and the people. He bore successfully the most searching questions of the best legal talent, at times lasting several days, and no exceptions to his testimony were ever made a ground of appeal to a higher court. The amount of labor he was called upon and often compelled to perform, against his most earnest de-

sire, furnishes the best evidence of the value placed upon his services. There are few, if any, counties in the State of New York in which he has not appeared in the capacity of an expert in cases of insanity. The last and most trying case is still vividly in the memory of all.

Upon his conduct of the Guiteau case in which he was the principal medical witness for the prosecution, may rest his reputation as the leading expert in insanity in the country. His testimony is a model of terse logic, of strong statement, of clear exposition of principles and facts of science, incontrovertible and convincing in its conclusions, a fit culmination of his labors.

Dr. Gray also achieved success as a lecturer on insanity. For some years he occupied the chair of Psychological Medicine and Medical Jurisprudence in the Albany and Bellevue Medical Colleges. These lectures were undertaken not so much for his own honor and emolument as for the advancement of the medical profession. He believed that the specialty should be recognized in the curriculum of the colleges and that its importance demanded that instruction should be offered to the rising generation of medical men. His lectures were noted for their clearness and definiteness of statement, and for an eloquence and grace of style which attracted many hearers beside the students of his own department. This success gave him the keenest pleasure, and is all the more remarkable as it is an observed fact that few men succeed as instructors who have not begun in early life. It is however an evidence of the versatility of his great power.

More than any other person, Dr. Gray shaped the lunacy legislation of the State of New York, and it is largely to his influence with the commission appointed to codify and revise the law, that we owe the present lunacy statutes, which surpass, in many respects, those of Great Britain, upon which they were in part modeled. In matters pertaining to other dependent classes his influence was also felt, as his advice was often sought by the Boards of Managers having charge of the various charities, reformatories and prisons, by legislators, judges and officials. His opinions carried the weight of an authority, as they were based upon broad principles, and sustained by extensive knowledge and experience.

As a writer Dr. Gray was widely known to the profession, though he never published, as he was often importuned to do, any consecutive work upon the subject of insanity. He wrote many articles for the JOURNAL OF INSANITY, and addresses before socie-

ties which attracted attention and showed his ability as an author. The annual reports of the asylum were often important contributions to the specialty, as they contained, not only his views and ideas upon subjects of interest in the study and treatment of disease, but also details of construction, organization and administration, of great value to those in charge of like institutions. That they recorded many of the methods employed for the occupation, amusement and moral treatment of patients, which are to-day heralded as steps of progress, is a strong tribute to his thoughtful, practical mind, and to the advanced ground which he occupied.

In the death of Dr. Gray the medical profession lost one of its strong, great men, and one whom it has honored by the many offices and preferments conferred upon him. He was successively chosen President of the Oneida County Medical Society, of the State Medical Society, of the State Medical Association, of the Association of Superintendents of American Institutions for the Insane, and of the Association of Medical Editors. He was an honorary member of the Psychological Association of Great Britain, of the Medico-Psychologique of Paris, of the Society de Freniatria of Italy, and of various other scientific bodies. He was President of the Psychological Section of the Centennial Medical Congress of 1876, and at the time of his death held a similar position in the Ninth International Medical Congress, to be held in Washington, in September, 1887. He also had conferred upon him the title of LL. D. from Hamilton College.

As a physician he held a high place in the regard of the profession and the public. He was readily approached; gave freely and willingly of his time to all, but especially to the younger members of the profession who appealed to him for assistance. In his practice he exhibited the same characteristics as in his conduct of public affairs. He possessed a comprehensive knowledge of medicine which, combined with ripe judgment, the power to note the salient points of a case, and to apprehend the relation between cause and effect, made him a safe counselor; inspired confidence in his decisions, and caused him to be consulted in the most important cases, both by physicians and those occupying the highest official and social positions. No better evidence could be given than the confidence thus reposed in him by those most competent to judge of his attainments in his profession.

Though fully occupied with the labors of his position, Dr. Gray found time for the exercise of the duties of a citizen, and as such was most highly respected. His patriotism was unquestioned and

unbounded. Unable to enter the army from the position he held as superintendent of the asylum, he gave freely of his means and time in collecting money and obtaining recruits to fill the quota of the city. He was generous, liberal-minded, and active in every charitable and public work which would relieve suffering or promote the interests of the community. He was domestic in his feelings and tastes, and loved to spend the time not urgently demanded by his duties, in his home, surrounded by his family and intimate friends. He was an affectionate husband and an indulgent father, a sympathizing friend in sickness, an admirable nurse, gentle as a woman in his care, and full of expedients for the relief and comfort of those to whom he ministered.

Among the most notable characteristics of Dr. Gray were his readiness to appreciate, and ability to state, in a clear, forcible manner, the fundamental principles of any question, his rare power of observation, his calm and independent judgment and his strong convictions. These qualities, combined with an indomitable will, fully explain his influence over others, and were elements of his success. He had a wonderfully retentive memory, both of persons and things, great affability of manner and kindness of heart, and a strong love for children, by whom he was always beloved.

In conversation he was brilliant and instructive. From every place he visited and from every person he met he gathered information which it was his pleasure to impart to others. To all he was a cheerful and agreeable companion. Few people came into his presence without being impressed with these traits, and without recognizing the power and ability of the man. He was a natural leader of men and would have reached the highest position in any walk of life he might have chosen.

Though like all men with true independence of character, he met with opposition and criticism of his administration; they rarely provoked him into controversy, or changed his course of action, but if attacked upon charges reflecting upon the probity of his official acts he never failed to defend himself successfully. Satisfied in his own mind of the correctness and integrity of his conduct, under all circumstances he dared do what he felt was right and left the consequences to care for themselves. The full confidence of his friends in his honesty and ability united them in a generous support of his management.

Dr. Gray was a firm believer in the Christian religion and a member of the Reformed Church in Utica. His religious views,

formed early in life, were settled convictions and never a subject of question or doubt. They controlled his life and conduct.

In looking over his life-work there is a richness of labor and a fullness of success that rarely falls to the lot of man. In all the fields of action in which he bore a part, as the head of a great charity, a medical jurist, a lecturer, as the editor of the *JOURNAL OF INSANITY*, as a physician, a citizen and a friend, there were the evidences of great power, of strength of character and generosity of disposition, which were the elements of his success, which made him beloved and which make his death a serious calamity to the community, to the profession and to his friends. What higher tribute could we give to his memory?

BY EUGENE GRISSOM, M. D.,

Superintendent of North Carolina Insane Asylum, Raleigh, N. C.

It is Wordsworth who says:

“One adequate support
For the calamities of mortal life,
Exists, one only—an assured belief
That the procession of our fate, however
Sad or disturbed, is ordered by a Being,
Of infinite benevolence and power;
Whose everlasting purposes embrace
All accidents, converting them to good.”

When the sad tidings were flashed through the land that Dr. John P. Gray was no more, every heart in this body was struck with a sense of loss—profound and irreparable.

There are men who are powerful of and in themselves only—by the innate kingship of their natures. Place and position have nothing to do with their influence upon fellow-men. Whether adorned with the insignia of office or decorated by titular honors, or walking the “cool sequestered vale of life,” careless, apparently, of what others seek, they yet command by their very presence—they lead by the force of their great wills, they conquer because no opponent can detect a thought of surrender in their breasts.

Of such men was Dr. Gray. When the annalist comes to reckon the services to science and to humanity of the vigorous intellect, the undaunted spirit, and the clear intelligence of him whom we commemorate to-day, high indeed will be the position assigned

him in the ranks of medical philosophy, and alienistic literature.

When the influence of the metaphysical school of thought, in its theories of the causation and development of insanity was predominant, and almost universal in Europe and America, the facts upon which its theories were founded were incisively examined by Dr. Gray, and the conclusions boldly challenged.

It is not necessary to remind this body of the brilliant discussions and papers with such giants as Dr. Ray embracing one view, and on the other side, he whom we lament to-day, the intrepid young champion of the theory that insanity is purely the result of physical disease, now so widely held, as to make us lose sight of the courage once involved in the declaration.

Whatever may be the view of any in this body upon questions whose discussion is foreign to this solemn hour, there is no one who will not recognize the patient industry, the untiring investigation, the calm confidence in principle, the unflinching adherence to what he deemed to be truth, the contempt for unreality and pretension, the bold advance in scientific thought, and the daring efforts to penetrate the unknown—yet, on the other hand, the well-marked conservatism in methods of treatment, which characterized Dr. Gray.

His distinguished position in the State, which is an empire of itself, invited the slings and arrows of partisan and personal strife, and many and repeated efforts were made to embarrass his administration, and lower the high and lofty plane of treatment he always demanded as the right of the sick and the suffering at the hands of their more fortunate fellow-men.

Unmoved by the appeals of those who preferred expediency to justice, and refusing to consent to the withdrawal of any privilege which could be conferred upon the afflicted, who rested under the protection of his strong arm, he fought humanity's battle. Yet, doubtless, the long and harassing conflict was undermining the strength of the once robust form, weighed down with the responsibilities and cares borne so long and so well.

At last, the shock of the assassin's bullet came which, though not directly fatal, doubtless fell like an axe at the root of the tree. Like many of our profession and particularly of the specialty which I have the honor to address to-day, he fell a martyr at his post.

Devoted to the best interests of this body, proud of its advance in science, and the regard of mankind, kind and hospitable to its younger members, clear in judgment, faithful in counsel, decided

in conviction, profound in knowledge, brave and generous, we shall miss him long.

The poet has said:

“ Take them, O Great Eternity ;
Our little life is but a gust
That bends the branches of thy tree,
And trails its blossoms in the dust.”

Let us not echo the melancholy refrain of such sorrow, that hath no comfort, but rather say with Charles Wesley, as we lay these sprigs of green upon the new-made grave of so much that was noble and was true.

“ Pass the few fleeting moments more
And death the blessing shall restore,
Which death hath snatched away ;
For me, thou wilt the summons send,
And give me back my parted friend,
In that eternal day.”

RESOLUTIONS.

Whereas, The Association of Medical Superintendents of the Insane in America, has received the sad intelligence of the death of Dr. John P. Gray, Superintendent of the New York State Lunatic Asylum, of Utica, and formerly President of this Association ;

Be it Resolved, That this Association has heard with profound sorrow the announcement of the death of Dr. John P. Gray, and feels a deep sense of bereavement in the loss of one so distinguished, alike by his lofty abilities in his profession and his devotion to its interests.

Resolved, That in this melancholy event this Association has lost one of its most untiring workers and brightest ornaments; science, a leader intrepid in thought and wise in counsel, the insane, a devoted and life-long friend, and all humanity a generous and courageous defender of the sorrowing and the suffering.

Resolved, That this Association desires especially to record its debt of gratitude to the distinguished dead for the conspicuous fidelity with which its interests were maintained for so many years, in his editorial charge of the AMERICAN JOURNAL OF INSANITY, and the innumerable tokens of kindness received at his hands by the members of this body.

Resolved, That the Secretary be requested to communicate these resolutions to the family of our deceased friend, with the expression of the sincere and heartfelt sympathy of this body in their great affliction.

BY J. H. CALLENDER, M. D.,

Superintendent of Tennessee Hospital for the Insane, Nashville, Tenn.

Before the resolutions reported by the committee are put to vote I am impelled to add a word. After the elaborate and eloquent eulogies read in our hearing, by Drs. Andrews and Grissom, perhaps nothing need be added, and I am sure nothing that I might offer would be so well said. They have faithfully portrayed the professional career of our recently deceased associate, and justly analyzed the elements of his worth as a philanthropist, and the characteristics of his achievements in the specialty which have made the reputation to which we are doing honor. Certainly we all concede that in the death of Dr. Gray, American psychiatric medicine lost one of its most eminent figures, and when we reflect, as one of the obituary papers stated, that scarcely three-score years had ripened on his head, and that he fell in the mid-career of his success and usefulness, there may, indeed, be properly applied to him the words of the great poet spoken of another: "He should have died hereafter." I ask pardon for detaining the Association, but from long association with him in the councils of this body and in other relations, I would do violence to my feelings did I fail to say this feeble word in corroboration of the tributes just paid to his memory.

A PSYCHO-MEDICAL HISTORY OF LOUIS RIEL.*

BY DANIEL CLARK, M. D.,

Medical Superintendent of the Asylum for Insane, Toronto.

Louis Riel was about forty-four years of age when he was executed. He was born in the Red River country when it was in the possession of the Hudson Bay Fur Company. Riel was a "half-breed," so-called, but was only one-eighth Indian. The rest of the personal unit was French-Canadian. He was educated at St. Boniface Roman Catholic School and Seminary, near Winnipeg, until he grew up to manhood. He proved to have more than ordinary aptitudes and intelligence, and applied himself with great diligence to take advantage of his opportunities, as his parents were poor. These seminaries of learning were conducted under the auspices of Archbishop Taché. The lad Riel attracted his attention, and ever afterward he took a kindly interest in him. The archbishop found that the young man was anxious to become a priest. Seeing in him talents which would fit him for the sacred office, when his education would be completed, he sent him to Montreal to finish his studies. A French lady, also, took more than a passing interest in the young man, and extended to him her aid and encouragement. While at college he behaved very well and studied hard, but being somewhat retiring and taciturn, he made few companions. This quiet disposition was in striking contrast to his history in after years. As was natural, he kept a regular correspondence with his benefactor, the archbishop. It was not long, however, before his letters showed that strange and Utopian ideas were taking possession of his mind. The writer had an opportunity to examine a number of these letters, and it was evident from the tenor of their contents that the young man had imbibed the idea of carrying out schemes which would make him the head centre of a religious movement, which would, in his estimation, astonish the world. Money was necessary, and the rich must be forced to bestow on him such amounts as he thought necessary. This was the main idea he elaborated in the letters. So to quote any of them would be wearisome. During the latter part of the five years he attended college in Montreal, those letters

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

showed to Archbishop Taché that Riel's mind had become so erratic and full of delusions as to incapacitate him from becoming a priest. The project was abandoned, as he lacked that judgment and discretion so requisite of any man about to enter holy orders. About this time he did some strange things, which he states in one of his letters. He boldly entered the private residence of a wealthy French Canadian, in Montreal, who was a stranger to him, and peremptorily demanded \$10,000, to assist him to go among the heathen and establish churches in his own name. This freak is corroborated by the citizen of whom he made the demand. About the same time he wrote to his mother, in Winnipeg, ordering her to sell all her effects and bring the money to him at St. Paul, Minnesota. The funds were to be used by him in the Lord's service, as He would dictate. The silly woman, who was a widow at this time, and whose intellect, at best, was of a low order, did as directed, and started with a horse and cart to meet her son and deliver to him her small savings. At this time there was no railroad between her home and St. Paul, so the journey meant a weary travel of more than four hundred miles over the prairie. After three weeks' travel she reached her destination. Her son did not appear, so she went back, sad and disappointed, to her lonely home on the banks of the Assiniboine river. Riel did not leave Montreal, and wrote to his mother excusing himself for breaking his promise, as he was commencing to put into operation a great mission of some sort or other, of which he gave no particulars. This was in 1867, and for years previously he had been leading a wandering and purposeless life. At the end of this year he returned to Winnipeg, poor and proud. For some years after this he remained quiet, and lost, for a time, or suppressed, his grandiose ideas. He behaved himself as a citizen, and gave no trouble to his kindred. He married a respectable and intelligent Cree "half-breed," and settled down to till the soil. All his friends testify that work of any kind was irksome to him, and he was what a Scotchman would call "a ne'er-do-weel." He was well educated, but applied his knowledge to no good purpose. He seemed to lack stamina of mind, and was open to engage in any enterprise which would feed his latent ambition. His mental composition was unstable, and, as a consequence, its equilibrium was easily disturbed by any circumstance, which would evoke its bias, or give rein to the forces of passion which had found lodgment therein. Such minds are like a magazine of dynamite, which only need a shock of a mental or moral nature to cause an explo-

sion. Riel was constantly building castles in the air, and in his visionary schemes he was always to be the leader. In this ideal his fancy gloried in anticipation, and he would brook no opposition. The grand opportunity came from a direction he little dreamed of at the time.

In 1868 the vast "Lone Land," whose wheat area is equal to six States like that of Minnesota, was turned over to the Canadian government by the British Crown cancelling all charters giving occupancy thereon for hunting, fishing and trading. The "half-breeds" were not consulted, although that was their native land. They could not be looked upon as aliens, nor as the nomadic Indian tribes, who had no abiding interest in any one part of the soil. These Scotch and French mixed races were settlers, and large numbers were farming, as their fathers had been before them. To them the transaction was a bargain and sale of their homes and country to a foreign power. The paternal rule of the Hudson's Bay Company was to be followed by a government of which they knew little, and which was fifteen hundred miles away. There were over twenty thousand of these people, and many of them had been well educated at the Protestant and Catholic schools and colleges. No wonder they became rebellious, when no provision had been made guaranteeing to them even squatter rights. In the murmurings and discontent Riel saw his opportunity. He was eloquent and crafty, and fanned the flame into a burning fire of rebellion. By ingenious reasoning, he showed his countrymen and compatriots how unjust it was to have their country ceded to Canada, without their consent, or even consultation and guarantee as to their rights and privileges as owners of the soil. Many of his followers were ignorant and impulsive, but on account of Riel's religious fervor and intense earnestness, they looked up to him as a fit leader to have their grievances redressed by the establishment of an independent government. Riel was educated and had travelled. He knew what rebellion meant, were his mind in a wholesome state. He could not hope to succeed against the Canadian forces, and—if need be—against those of Britain, with a few hundreds of untrained volunteers. The former ideas of power and glory came back upon him, and he "lost his head," as the saying is. He strutted about with the airs of a pompous conqueror, when he found himself at the head of an armed force, defying his foes. He was dictator and high priest combined. At this time Canada was about to send a lieutenant-governor to take possession of the country. The Provisional Government of

Riel determined to meet him at the boundary line and resist his approach. Riel, with his armed force, seized Fort Garry without resistance, as it was only held by a few Hudson Bay employés. In this way the rebels procured ample supplies of food, clothing and arms. This was in October, 1869. A band was sent to the boundary line to resist the entrance of the Canadian governor. They succeeded in this respect. During the following winter the whites and Scotch "half-breeds" began to rebel against the arch-rebel. A counter-movement was made, but it was weak, and was crushed out of existence by Riel's followers. A white, of the name of Scott, was sentenced to be put to death because of his indiscreet utterances against this Provisional Government. After a summary trial, by a sort of court martial, he was shot for treason and using seditious language against the insurgents.

The cruel death of Scott caused intense feeling in Canada. When spring came a force was organized in the east, composed of British regulars and Canadian volunteers. They tramped the wilderness of six hundred miles, between Port Arthur, at the head of Lake Superior and Winnipeg, under extreme difficulties. This force was commanded by General Woolsey. When it reached Fort Garry, and the bugle notes of the advance guard were heard by Riel, he fled to the United States, and his followers scattered to their homes. Good flowed from this uprising, and the many wrongs of the early settlers were redressed. Louis Riel was looked upon as having been instrumental in bringing about this improved condition of things. So popular was he that in 1872 he was elected a member of the Canadian Parliament by acclamation. He went to Ottawa and took the oath of allegiance. His life was threatened by some super-loyal roughs, because of the murder of Scott. So he thought it safer to leave the capital, to which he never returned. Strange to say, Riel resigned his seat for Cartier, a prominent French Canadian, of Quebec, and a member of the government which Riel had rebelled against. The ex-rebel's seat was occupied, and he was given money by the government, through the hands of a church dignitary, to leave the country. After this time he wandered through the United States for several years, quiet in manners, well behaved, and giving utterance to no delusions. This is the testimony of those who knew him, and met him at St. Paul, Montana and other places.

In 1876, Riel found his way to Montreal, and one Sunday he interrupted religious services in one of the churches by declaring he was superior to any priest or bishop, and should himself conduct

the service. He was arrested and was examined by two medical men as to his sanity. He was declared insane, and was legally committed to Longue Pointe Asylum. After a few months' incarceration there, he was transferred to Beauport Asylum, near Quebec, as a dangerous lunatic. Dr. Roy, medical superintendent of Beauport Asylum, gave sworn testimony to this effect at the trial of Riel. He recovered, after having been insane over a year and a half, and again began to wander over different parts of the United States. He went to Washington in the hope of inducing the American government to appoint him to some responsible position over the "half-breeds" and Indians of Montana. He failed in this, but acted so strangely in the street that he was arrested. His prophecies, visions, and feeling of greatness again possessed him. After a short time he was liberated, and found his way back to his family in Montana.

In 1884, discontent again broke out among the "half-breeds" and Indians in the Saskatchewan valley, because of the encroachments of the whites, and their threats made to dispossess these early settlers and aborigines of their country. This fertile valley lies over five hundred miles northwest of the country in which was the rebellion of 1870. This primitive people had petitioned the government for years to redress their grievances, but a deaf ear had been turned to their appeals. In their extremity they naturally bethought themselves of Riel, who had been the means of obtaining redress for their kindred in Manitoba. A deputation was sent to see him, at his home in Montana. The mission was successful, and Riel once more became an agitator among his kindred. At first constitutional means were adopted, and Riel, at this time, kept his head level. At the different meetings held Riel showed no signs of insanity, and all his actions were those of a sound leader. As the agitation went on, and feeling began to run high, the former form of mental alienation began to manifest itself. The leadership gave him importance and notoriety. The quiet man and prudent counsellor began to show undue excitement, regardless of consequences. His religious zeal, his praying night and day, his carrying and holding aloft a crucifix, his fervid appeals aroused his ignorant and deluded followers to a dangerous pitch of frenzy. He now defied not only the mounted police, but also the Roman hierarchy. He drove priests from the altars and chapels, and desecrated them for common purposes. He was a supreme pontiff himself, and could make and unmake popedom.

Riel, in one of his paroxysms of fury against the priests who

would not second his efforts, drove them from the chapel, and assumed in their stead sacerdotal functions. He baptized a number of children, he confessed and gave absolution to over forty persons, he held confirmation at the altar and in public, and in order to transmit to the congregation the breath of the Holy Spirit, he uttered three cries so loud and penetrating that they caused the windows of the building to vibrate. Whoever would go to the spot could collect from the lips of eye and ear witnesses many particulars of this nature in respect to Riel at this time.—[*Cor. Minerve, Quebec.*]

About this period Riel always wrote after his signature the addition "Exovced," which he interpreted to me to mean, "Chief of the flock," or "Head of the people." All the documents I have seen or heard of during the rebellion, had this affix, except those sent to General Middleton, during the engagement at Batoche.

In 1865 he wrote to a clerical friend in the northwest, that he was not Louis Riel, but somebody else. He claimed that he was David Mordecai, a Jew, and was born in Marseilles, France. He came over to Canada when he was only a mere child. His appearance was so like that of Louis Riel that they might be taken for twins. *The* Louis Riel was thrown overboard from a steamer on the Mississippi and he was put in his place. So alike were they that even those in charge of the child did not detect the deception. His guardians did the foul deed, because his parents had left him immense wealth, and they wished to secure the property for themselves. He was not Louis Riel, and not the rightful heir of an immense estate, which had been acquired in this way. Being a Jew, it was his duty to redeem the race, and rectify the wrongs which had been done. He was a second Saviour, sent in these latter days to not only succor Jews but also Gentiles, from temporal, political and spiritual bondage.

The writer saw a letter written by Riel to a church dignitary, at the time he was a patient in Beauport Asylum. It is rambling and nonsensical, but natural to any one who has to read the superlative ideas of the conceited insane. It is signed "Louis *David* Riel, by the grace of Jesus Christ, Prophet, Pontiff, Infallible and Priest-King." This letter is dated July 30, 1876. In a postscript he gives a reason for adding "David" to his name. It was on account of the King of Israel having been chosen by him as his patron saint, and who had delivered him out of the hands of his enemies. The Spirit which spoke to Moses out of the burning bush had often spoken to him. Why? Because he was

about to liberate his brethren in somewhat the same way out of their bondage. On the Sunday before his execution, when he was sure the death sentence would be carried out, he told his confessor that he had a visit the previous night from the prophet Jeremiah. The Hebrew seer had a long conversation with him on the merits of the Book of Lamentations. He was a greater potentate than Queen Victoria, and defied all the military resources of Canada or the British Empire. He saw armies of men in the heavens. Fire and tumult and chariots and angels were everywhere apparent in the air. All were portents of coming victory to his followers against their oppressors. He heard the voice of God speaking to him, and commending his ways. He had daily conversations with the Almighty. By the means of visions, dreams and voices he was able, not only to foretell future events, but also to command thunderbolts to destroy armies. These are some of the delusions which I found in his diaries. The whole of his writings in this strain would make a large book if printed, and the veriest trash as a whole. Now and then some passages would be vigorous and sensible, but ever and anon would crop up his visions and prophecies and greatness.

The following extracts of evidence elicited at the trial give us glimpses of the prisoner's mental condition at and after the outbreak of the rebellion:

Charles Nolin was cousin of the prisoner, and assisted him in the legal agitation, but refused to be drawn into rebellion. He stated that Riel went into the northwest in July, 1884. The prisoner showed him a book, in which he had expressed a determination to destroy Canada and England. Prisoner told him he was a prophet, and one evening when Riel was at house of witness a noise escaped from Riel's stomach which he said was an inspiration. Riel showed witness a sheet of paper, on which he had written in blood, his plans for the campaign. Ontario was to be given to Ireland, Quebec to Germany, and the northwest territories to be divided, the Hebrews getting a share. The prisoner's character changed remarkably about the time of the outbreak. The very word "police" made him furious.—[*The Toronto Mail*.]

Father Andre, Superior of the Oblat Fathers, had lived in the country since 1865; knew Riel well, and had watched his conduct; frequently spoke with him of the situation and on religious matters; on questions of politics and religion he lost all control of himself, and was not the same man; told the prisoner he was a fool on these subjects, not having his mind. Prisoner often said

things that frightened me. Once all the priests met together, and the question was discussed and unanimously decided, that he was not responsible. In discussing those questions with him it was like showing a red rag to a bull. I do not think that every man who has strange ideas on religion is a fool; it depends on his conduct in expressing them. The prisoner never had any principles, except that he was an autocrat in religion and politics, but his ideas changed—to-day he admitted one thing, to-morrow he denied it.—[*Toronto Globe.*]

Dr. Roy, medical superintendent of Beauport Asylum, testified that Riel had been a patient of his in the asylum. Prisoner was discharged from the asylum in January, 1878, after a residence of about nineteen months. Had an opportunity of studying the disease prisoner was suffering from; had conversations with him often. The particular disease of the prisoner was the mania of ambition, called by eminent authors "Megalomania." The symptoms of the disease are sometimes found in ordinary maniacs. These maniacs are sometimes very clever in arguing from a false idea, and are very excitable when opposed, because they hold the false idea strongly, and are perfectly sane on all other questions. Pride occupies a place in the symptoms of the disease. The victims are very egotistic, and forget their best friends. The difficulty is to make them believe they will have no success in their schemes. Very rarely are they cured, though there may be intermissions. There is more or less difference in each case. Heard the witnesses in the court describe the conduct of the prisoner during the agitation and rebellion. I am perfectly positive prisoner was not of sound mind when he was under my care, and I believe the actions described by the witnesses were done when he was laboring under the disease; do not believe prisoner had control of his actions at these times. The symptoms of this malady, disclosed in court yesterday, are the same he suffered from when he was under my care. A feature of the disease of "Megalomania" was a fixed idea, incapable of change by reasoning, and which is beyond the patient's control. Such have lucid intervals, intermissions for weeks and months. The evidence of the clergy shows in a positive manner, that the prisoner manifests the same symptoms he discovered when he was under my care. A man laboring under this disease might desire to obtain money to carry out his false idea. The facts brought out in evidence in regard to prisoner's actions, were, in his opinion, inconsistent with skilful fraud, as could be said of all human conduct in the sane.

Father Tourmand said he was well acquainted with Riel. He was present at the meeting of priests at which Riel's sanity was questioned. Often conversed with him on religious and political subjects. I knew the facts upon which the question of his insanity arose. Before the rebellion Riel was a polite and pleasant man to me. When he was not contradicted about political affairs he was quiet, but when he was opposed he was violent. As soon as the rebellion commenced he lost all control of himself, and threatened to burn all the churches. He denied the real presence of God in the Host. It was a man of six feet. Riel said he was going to Quebec, France and Italy, and would overthrow the pope, and choose a pope or appoint himself. We finally concluded there was no other way of explaining his conduct than that he was insane. When the fathers opposed him he attacked them. Witness was brought before the rebel council to give an account of his conduct. He called me a little tiger, being very much excited. Never showed me a book of his prophecies, written in buffalo's blood, although I heard of it. The prisoner was relatively sane before the rebellion. Could better explain prisoner's conduct on the ground of insanity than that of great criminality. Witness naturally had a strong friendship towards prisoner.—[*Toronto Globe Report.*]

Philip Garriot, a prisoner, said Riel often stopped at his house. The prisoner would pray all night; never heard such prayers before; prisoner must have made them up. Heard him say he was representing St. Peter. Heard him talking of the country being divided into seven provinces, and he was going to bring in seven distinct nationalities to occupy them. He expected the assistance of the Jews and other nationalities. Riel said he was sure to succeed. It was a divine mission, and God was chief of the movement. Only met him once before the trouble. I thought the man was crazy.

At a wedding which took place at Batoche in April, 1885, Riel carved for the wedding party and set apart some of the food and also a chair, which he said were for Jesus Christ, who was to be present. Nolin, a cousin of the prisoner's, who gave testimony against him, said that in an interview he had with Riel, he set an empty chair between them, as the Saviour was to be present at the interview. This witness is an intelligent man, and thought Riel "acted like a fool."

The following declarations made by half-breeds is taken from the government organ of December 17, 1886, (*Toronto Mail*):

Antoine Ferguson says: "I believe that Riel was insane during the rebellion."

Neil Jervais says: "I thought sometimes that he was not quite sane during the troubles."

Maxime Colin says: "He acted sometimes as if he had wished to be taken for an insane man."

John Sanserequet says: "During the trouble I thought that Riel was not quite sane."

Cyrille Lafond says: "I thought at certain moments during the trouble that Riel was not quite sane."

Charles Lavallee, Sr., says: "I had known Riel in Manitoba, and I thought he was not quite the same man during the troubles."

Pierre Vaudal says: "I have said sometimes during the trouble that Riel seemed not quite sane."

Isadore Lafontaine says: "I thought at certain moments that Riel was not speaking like a sane man."

It is true a number of half-breeds also stated that they thought Riel was not insane. It is to be remembered, however, that their pride revolted against the idea of being influenced by an insane man. At the same time, it is not to be forgotten that these ignorant men may never have seen an insane man, and of necessity must have had hazy ideas of what insanity really meant. The more masked and subtle forms of it would be beyond their ken. This being the case positive statements like the above have more than ordinary value.

On July 28, 1885, the writer made a first visit to Riel in the prison at Regina, Northwest Territory. He was found to be a stoutly built man and of splendid physique. He was in good health, about forty-two years of age. He had a swarthy complexion and black eyes of great brilliancy, restless and searching. His movements were nervous, energetic and expressive as are so characteristic of the French. This was evidently a normal condition and not from apprehension as to his fate. He was very talkative, and his egotism made itself manifest, not only in his movements, but also in his expressed pleasure in being the central figure of a State trial, which was likely to become historic. The writer stated to him that his lawyers were trying to save his life by proving that he had been insane. At this statement he got very much excited, and paced up and down his cell like a chained animal until his irons rattled, saying with great vehemence and gesticulation, "My lawyers do wrong to try to prove I am insane."

I scorn to put in that plea. I, the leader of my people, the centre of a national movement, a priest and prophet, to be proved to be an idiot. As a prophet, I know beforehand, the jury will acquit me. They will not ignore my rights. I was put in Longue Pointe and Beauport Asylums by my persecutors, and was arrested without cause when discharging my duty. The Lord delivered me out of their hands."

I questioned him very closely as to his plans in the past, but he did not seem to be communicative on these points. He said he would insist on examining the witnesses himself. He did not feel disposed to allow his lawyers to do it for him, if they were determined to try to prove he was insane. During the trial he made several attempts to take the case into his own hands, as in the questioning of witnesses, his importance seemed to be ignored by his counsel. I asked him if he thought he could elicit more on his own behalf than men expert in law could. He proudly said: "I will show you as the case develops." During a long conversation with him, I found him quite rational on subjects outside of those connected with his "mission" and personal greatness. He walked about a good deal as he talked, at the same time putting on his hat and taking it off in a nervous way. His fidgety way, his swagger, his egotistic attitudes, his evident delight at such a trying hour—in being so conspicuous a personage—impressed me very strongly as being so like the insane with delusions of greatness, whether paretics or not. A hundred and one little things in appearance, movement and conversation, which can not be described in writing, are matters of every day observation by asylum medical officers. I may say they are almost intuitions in this respect. Such knowledge as this, which we acquire by every day acquaintance of the insane, would be laughed out of court by the legal profession, who can not discern any valid evidence that does not tally with a metaphysical and obsolete definition.

It was evident to me that Riel was concealing to some extent the inner workings of his mind, and that he had an object in view in hiding his thoughts. I endeavored to make him angry by speaking contemptuously of his pretensions. He only shrugged his shoulders and gave me a smile of pity at my ignorance. I touched upon his selfishness in asking \$35,000 from the government, and on receipt of it, to cease agitation. He smiled at my charge, and said that the money had been promised to him and was due to him. Had he received it he would

have established a newspaper to advocate the rights of his kindred. It would have been a glorious work for him to be able to control a newspaper, and to promulgate in print his mission to the world.

Dr. Roy and myself had a second examination of Riel at the Police Barracks, on the evening of the 28th of July. He was closely catechised by Dr. Roy in French, and by me in English. He evaded giving direct answers to our questions, although he knew we were to give evidence for the defense, if his insanity were a fact. He thanked us for our kindly interest in him, but repudiated our plea with scorn. We took that ground to possibly put him off his guard, but in this he was consistent with himself and his record. We elicited little from him except that great developments, of a national character, were near at hand, according to his prophecy, and he was to be the central moving power. The insanity plea was abhorrent to him, and he scorned to take that ground, even to save his life. Friends and foes were convinced of his honesty and candor in his repudiation of this defense. He would rather die as a deliverer than live as a lunatic.

I had a third visit alone with Riel, in his cell, on the 29th of July. He was very much excited, and paced his narrow enclosure like an enraged tiger would, yet in this mood he said nothing. I accused him of hiding his motives to his own hurt, and told him that his friends from Quebec could do nothing for him because of his obstinacy. Suddenly he calmed down and with great self-possession said: "His legal friends had mistaken his mission. At present he was an important State prisoner, and he was suffering, not only for himself, but also for others." He also told me that he wrote a book which was still in existence. In it he clearly proved that he was a great prophet, and as a prophet he *knew* beforehand that a verdict would be given in his favor. I closely questioned him as to why he thought so, but his only reply was in putting his hand over his heart and saying pathetically, "It is revealed to *me*." I informed him that there was a bitter feeling hostile to him outside, and that so far the evidence was strongly against him and that he would probably be hanged as a felon. He smiled cynically at my ignorance, but the alternative did not seem to affect him. I told him the feeling had not subsided for the murder of Scott, in 1870. In reply he said the Northwest Council sentenced Scott to death for treason. He was only one of thirteen. He suddenly broke away from this subject and began to pour out a torrent of vigorous language on the head of Dr. Steultze, of

Winnipeg, whom he associated in some way with Scott and the rebellion of 1870. Before I left he came back to the fulcrum idea that he was yet to be a great political and religious leader, who would revolutionize the world.

These were the notes I took at the time. To me they were significant, but as legal evidence they would be considered of little value.

I wish again to repeat the statement which is a truism to alienists. He had a look and movement so characteristic of insane people, which it is impossible to put in words, but known so well to us. He had that peculiar appearance, which is hard to be described, of a man who is honest and sincere in his insane convictions and statements. There could be no doubt he was stating what he himself believed to be true. In acting as he did he was not a pretender, and did not assume those feelings to his own hurt for the occasion. The most cunning deceiver could not simulate the appearance and actions which he presented. A malingerer would never utter so much wisdom, mixed with so much that showed insanity. Riel's great aim, even at the trial, was to falsify the charge of insanity, and to show by his words his mental capacity to be a leader of men. Anyone who has read his letters and addresses to the jury will see that a great deal of shrewdness, and irony, and sarcasm, of rather an intelligent kind, were mingled with his delusions of greatness. This is perfectly consistent with his form of insanity. Every asylum could produce men and women just as clever, cunning, and able to write as good letters as Riel did, and even hide their delusions when it suits their purpose so to do. His frowns, facial disgust and deprecatory shakes of the head when evidence was given to prove his insanity, and his egotistic walking up and down the dock, with swinging arms and erect head when his sanity was witnessed to, were no actor's part. His actions and speeches carried conviction of their genuineness even to the minds of many who were bitterly hostile to him. Much evidence was given by the Crown after mine was rendered. His two speeches made to the jury and much of his excited conduct in the dock towards the end of his trial impressed me very strongly as to the prisoner's mental unsoundness. His whole aim was to show that he was responsible in all his conduct, and not demented. He was a saviour and leader of his people, and this glorious position was to be taken from him by his friends trying to prove his insanity. He repudiated the plea with scorn.

Riel, in his address to the judge, after a verdict had been ren-

dered, said, with an honesty which carried conviction to every one who heard him, "I suppose that now, having been condemned, I will cease to be called a *fool*, and for me it will be a great advantage. If I have a mission—I say "if" for the sake of those who doubt—but for my part, *since* I have a mission, I can not fulfil my mission as long as I am looked upon as an insane being." Again: "Should I be executed, at least, *if I were going* to be executed I would not be executed as an insane man. The recommendation to mercy by the jury shows me to be a prophet. So my career is cleared of the charge of insanity." After giving an outline of what he intended to do, in dividing the country into ten nationalities, he gives vent to the following delusion: "My ancestors were among those who came from Scandinavia and the British Isles over a thousand years ago. Some of them went to Limerick, and when they crossed to Canada they were called Riel. So there is in me Scandinavian, Irish, French, and some Indian blood."

"I thank the glorious General Middleton for the testimony that I possess my mental faculties. I felt that God was blessing me when those words were pronounced. Even *if* I have to die, I will have the satisfaction to know that I will not be regarded by all men as an insane person. I was in Beauport and Longue Pointe Asylums, but was not insane. I thank the government for destroying the testimony of Dr. Roy, who says I was insane."

There is much of these denials in his two speeches, mixed with sarcasms against the government, and with declarations of his great mission as a prophet and deliverer of his people. Some of his statements were very pathetic and even eloquent. All this medley of sense and nonsense, shrewdness and want of judgment, cunning and honesty, are no new features in an insane character. The metaphysical and theoretical lawyer can see such in any asylum at any time were he looking for light.

Rev. Mr. McWilliams, Roman Catholic priest, was with Riel a good deal before his execution. He believed the prisoner to be insane. I quote from the government organ, which urged his execution, (*Toronto Mail*), "Riel has had another 'manifestation,' consisting of entirely incoherent rubbish. Riel took advantage of the Rev. Mr. McWilliams' presence on Friday night to declare his divine mission. 'I am,' said the prisoner, 'a prophet; I have been ordained, not as a priest, but as the prophet of the northwest, to preach a reformation to you and every minister of the church, and will continue to fulfil my mission until I mount the scaffold.'

While delivering himself of this little oration he paced his cell like an infuriated maniac. He thundered his anathemas on the policy and principles of the nineteenth century churches, gesticulating almost all the while. When he came to the word 'scaffold' he faced his visitors. With the veins of his throbbing temples distending with convulsions, he pointed towards the scaffold, and fixing his wild, haggard eyes on the Rev. Mr. McWilliams, continued: 'To that scaffold will I walk boldly, preaching this mission of church reformation so much needed throughout the world.'

I have given part of the evidence of these non-professional people, because it is recorded in law books, and was asserted by a learned Queen's Counsel at the trial, that any ordinary common sense man could detect an insane man as easily as could an expert. Had this sweeping assertion been made of cases of acute mania, there might have been some force in it; but any one who has even a limited experience of the insane knows that there are many phases of insanity in all our asylums which in their subtlety and masked form, would baffle the common sense but inexperienced man, and even the legal theorist, with his ethical and antiquated absurdities of definition. I have seen judges, lawyers, and members of grand juries trying their mental acumen at selecting the sane from the insane in our wards, with most ludicrous results. Only a few days before his execution he wrote to his clerical friend in Winnipeg a farewell epistle. It is closely written in French, and contains fourteen pages of foolscap. He knew that his day of doom had come, yet it is full of the old delusions of prophecy and other rubbish concerning his power and greatness. One sentence will suffice as a specimen. He says: "The pope of Rome is in bondage and is surrounded by wicked counsellors. He is, however, not infallible, and the centre of the hierarchy should be located on this continent. I have elected Montreal as its headquarters. In a year or weeks after this change the Papal See will be centred in St. Boniface, Manitoba. The new order of things will date from December 8, 1875, and will last four hundred and seventy-five years."

Then again: "Archbishop Bourget told me of my supernatural power on the 18th of December, 1874. I felt it on that day, while I was standing alone on a high hill, near Washington, D. C. A spirit appeared to me and revealed it out of flames and clouds. I was speechless with fear. It said to me, 'Rise, Louis *David* Riel. You have a mission to accomplish for the benefit of humanity.' I received my divine mission with bowed head and uplifted hands.

A few nights before this the same spirit told me that the apostolic spirit which was in the late Archbishop Bourget, and who was the pope of the new world, had taken possession of Archbishop Taché. It is to remain with the latter until his death, and then will re-enter the archbishop of Montreal. It will remain in him and his successors for one hundred and fifty-seven years. At the end of that time it will return to the ecclesiastical head of St. Boniface and his successors for 1,876 years."

Such delusional and egotistic nonsense could be quoted to any extent. Enough has been transcribed, not only to show the groove in which his mind ran when these frenzies took hold of him, but also to indicate how consistent throughout his whole career of over a quarter of a century, his mental activity was in respect to the uniformity of these vagaries.

Archbishop Taché, in speaking of Riel and his condition, said: "For many years I have been convinced beyond the possibility of a doubt, that, while endowed with brilliant qualities of mind and heart, the unfortunate leader of the Metis was a prey to what may be termed 'megalomania' and 'theomania,' which alone can explain his way of acting up to the last moments of his life."

The prosecution brought forward a number of witnesses to show that such had known Riel and had conversations with him, but saw no signs of insanity. It need scarcely be said that such *negative* evidence is worthless. A person may be insane and yet *rational*. Such having delusions can mask them with a great deal of shrewdness in ordinary conversation. All asylums have this experience, until some pertinent remark or favorable condition evokes and brings into prominence and activity the abnormal and diseased mental bias. A thousand persons may see no insanity in a patient, but one reliable witness who has seen indubitable evidence of mental alienation, will cancel the whole negation. Leaving out the evidence for the defense altogether, the witnesses for the crown gave facts enough to establish the prisoner's mental unsoundness, at least in the estimation of the writer.

There is no doubt that Riel was responsible for some years, up to the time of the Duck Lake fight. The excitement of that fight caused another attack of insanity, and from that time there is no evidence that he was accountable for what he did. While he was suffering from these attacks he was not responsible for anything he did. I spoke to some of the half-breeds who were in all the engagements with Riel, and they uniformly said he was not the same man after the first fight. He seemed to have changed en-

tirely, and became frenzied. He organized no opposition after this time, did no fighting, but was looked upon as inspired by his deluded followers, and ran about from rifle pit to rifle pit, holding aloft a crucifix, and calling upon the Trinity for aid. The military organizers, leaders and fighters were Dumont and Dumais. These sane, shrewd and brave rebels have been amnestied by our government, but the mental weakling was hanged.

A few days before the execution two medical gentlemen were sent to Regina by the government to enquire into and report upon the prisoner's mental condition. It is just to them to say that they were servants of the government. One was a chemical analyst and the other was warden of Kingston Penitentiary. On their knowledge and judgment and skill as experts hung the fate of Riel, at least so it was said officially. They examined the prisoner and reported in cipher to the government. This report has never been published, although it was an official document, but on the contrary it was returned to the authors. A new report was made out when the examiners had returned to the capital, and after the prisoner had been executed. Such is the parliamentary record. It must be a satisfaction to these estimable gentlemen to know that their report did not seal the fate of the insane rebel.

The writer challenged the government to hold a *post mortem* on Riel's brain, and submit it to the examination of any competent pathologist. He was prepared to abide by the opinion and verdict of such an expert. This challenge was made through the press, and especially through the government organ. The writer was sure that organic changes would be found in Riel's brain, even of a gross nature, after such mental storms of a life-time. The foot-prints of disease were there, and within that skull was evidence of the prisoner's aberrations. Two medical men were present at his execution, but they also were government officers, under instructions. No *post mortem* of the brain was made. He was buried beside the scaffold where he bravely died. His body was kept under military supervision for about four weeks, and at the expiration of that time it was delivered up to friends. Decomposition had set in, and so the brain records were forever destroyed.

The facts set forth in this man's eventful history are not denied by his executioners. The plea is that he was a religious fanatic or "crank" such as are described in all ages of the world's history, that his delusions were normal to his mind and used by him to accomplish his selfish and ambitious designs. The answer

to this plausible excuse is, that his strange conduct was intermittent, and that during the many years of mental health he was quiet, unassuming, showing no delusions, and even supporting his family by engaging in humble employments, such as came to hand. In short, he was a well disposed and law abiding citizen. There is no parallel between him in any respect and those sane religious enthusiasts who found sects and carry on religious wars. Such adapt means to ends which have in them the probabilities of success, and have no intermissions such as Riel had in his life.

A crank has a mental twist from childhood upwards. He has mental peculiarities without intermissions and eccentricities throughout the whole course of his life. He is a *naturally* odd and hobby-riding man who is unchangeable in his possession of whims and fancies. The insane man becomes so synchronously with brain *disease*. These peculiarities come and go with the invasion of disease and departure of the corporeal *abnormal* condition. The intermissions of freedom from delusions or from mental deprivation are the insane man's normal condition. He then comes to himself in his words and conduct. The crank has no such intervals, because his mental condition is natural, uniform and continuous as known in all his doings. His being is saturated congenitally with all kinds of visionary projects or psychical obliquities, yet he will use ordinary methods and reasonable instruments to acquire power towards an end however absurd that goal may seem to mankind.

Let us drop the name and person of Riel out of our thoughts, and put in their place an algebraical symbol to equal an unknown mental condition of an equally unknown person. Let us then predicate of this symbol all that is known of this man's tragic, erratic and unaccountable history. Let all the facts be written in a medical certificate as reasons for putting this unknown person into an asylum. Let these recorded facts be closely scrutinized by legal and medical experts and properly authenticated, and there is not any asylum in Christendom but would commit him as a lunatic. In fact, there are few lunatics who have such a pronounced record of mental alienation and of periodic brain disease. In this way, we do not consider the sad mischief Riel has done, nor the cruelties of which he has been the instrument nor the grievous loss of life he has occasioned. We look at the man apart from all extraneous circumstances, and we judge of him only as a man.

It will be seen that I have avoided quoting authorities to bolster up my belief. I have thought it best to give a synopsis of this man's mental life, including the testimony of those who were his enemies as well as of those who had sympathy for him, and to let any candid mind say, if this man had always a sound mind in a sound body. Since his execution up to a few months ago his death was made to do duty as a political war-cry. It was felt that the recommendation to mercy by a Protestant and English speaking jury; that the strong evidence of the prisoner's insanity, which was adduced at the trial and after it; that the repeated postponements of the day of execution; that the fact of his having been only the nominal head of the rebellion should have had due weight with the executive. A living lunatic in an asylum would soon have been forgotten, but a dead Riel has roused into unwonted activity, influences which will not easily be allayed.

It may be interesting to American medical jurists to notice in connection with the trial of this unbalanced man the following points:

First. Under Canadian law a question of life and death was decided by a *petit* jury of only six persons, and selected by the magistrate who tried the case.

Second. There was no grand jury empanelled to examine the positive evidence against the accused.

Third. The magistrate who tried the offender for high treason was not a judge in the legal sense, being only a stipendiary magistrate, yet he presided over a State trial.

Fourth. It is customary in such cases in the territories to select a jury composed of half English and half of the countrymen of the prisoner. This jury was not so chosen. No half-breeds nor French—however loyal—were taken.

Fifth. The charge was *treason*, although the prisoner was an American citizen, and legally an alien and invader. He virtually led a rebellion against a foreign power.

Sixth. The question should not have been the prisoner's mental condition during the trial, but only when the overt acts were committed.

Seventh. The jury recommended the prisoner to mercy either (a) because the rebellion was justifiable, or (b) because his mental condition made him less responsible.

ARE DIPSOMANIA, KLEPTOMANIA, PYROMANIA, ETC., VALID FORMS OF MENTAL DISEASE?*

BY ORPHEUS EVERTS, M. D.,
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Mr. President, and Gentlemen of the Association:

In complying with the request of your committee to open the discussion appointed for this hour, having had no time for more elaborate preparation, I shall content myself by a bare statement of the question as presented by the committee, my own opinions, and a few of many considerations that have seemed to me to justify them.

The question as proposed by your committee is:

Are dipsomania, kleptomania, pyromania, etc., valid forms of mental disease?

Do uncontrollable impulses to use stimulants, to steal, to burn, etc., develop independently of other evidences of insanity?

The alternate proposition, as I take it, is the real question;—by our decision of the question as thus stated, at least, the whole matter may be intelligently disposed of.

To affirm the validity of any variety of so-called monomania; to say that a man may become utterly, helplessly insane, in relation to his own use of stimulants, or the acquisition or destruction of goods, etc., and remain unimpaired in all other respects, is equivalent to an affirmation of the possibility of becoming insane in relation to any one object of desire or recognition independently of all other. It implies, also, inasmuch as insanity, however limited, presumes concomitant impairment of material mechanisms, (material structures only being subject to disease,) innumerable independent mechanisms, and an identification of ideas by characteristics either singly or by groups, with such mechanisms, however numerous or minute.

Can such affirmations be sustained?

If the answer is—Yes,—then dipsomania, kleptomania, pyromania, etc., may be pronounced valid forms of mental disease.

*A discussion opened by Dr. Everts before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

If No,—then this whole brood of special manias, with its prolific mother vanishes from scientific recognition.

The testimony by which men are likely to be influenced in the formation of opinions respecting the matter under consideration is of two kinds,—viz.—(a) Testimony derived from observation of cases; (b) Testimony derived from scientific inferences.

The relative value of these two classes of evidence can be estimated only by persons familiar with both.

That the testimony of science, derived from studies of a wide range of correlatable facts pertaining to any given subject, is greatly superior to that offered by the senses unsupported by science may be inferred from the fact that many, if not all of the opinions, notions, beliefs, of mankind of all pre-scientific ages—whatever may have been the capabilities of the men of such ages; however accurate and minute their observations of isolated facts or phenomena—have been rejected as false, or modified as erroneous, by all of the advancing races of mankind, since the light of science began to fall upon their pathway.

But without further prefatory remarks I will say my present conviction is that dipsomania, kleptomania, pyromania, etc., are not valid forms of mental disease. Because I do not believe, as a matter of observation or scientific inference that uncontrollable impulses to use stimulants, to steal, to burn, etc., develop independently of other evidences of insanity.

A good deal of testimony has been presented to me by way of observation of cases ordinarily classified as dipsomania. I have had a daily average of ten such cases under observation for the last seven years, in addition to the numerous cases seen more casually before. A large number of opium habitues, and an occasional victim of cocaine, chloral, chloroform, and tobacco poisoning, have been observed with equal, if not greater, interest, at the same time.

It is, perhaps, needless to say that all such persons who are sent to, or seek hospitals for treatment, are subjects of uncontrollable impulses—better named desires—to use stimulants, or narcotic drugs; a condition either confessed or implied in every instance.

Were these persons, any, or all, of them, insane? Did they present other evidences of insanity than uncontrolled desires for intoxicants?

Were they insane, as manifested by such desires before using intoxicants, or having had experimental knowledge of their effects?

In answer to these questions I can say, unhesitatingly, that I believe such persons, as a class, are insane. At the same time I must say that the evidence of insanity in such cases is never limited to the single manifestation of an uncontrollable impulse to use intoxicants. Or that I have never seen an instance of the fact, if fact it ever is. Nor have I, of say three hundred cases treated within the last seven years, seen a single instance, historically or otherwise avouched, of uncontrollable impulse to use stimulants preceding experimental intoxication.

The evidence upon which I base my belief that these persons are insane is not alone the superficial symptoms of inordinate desire for stimulants, and an inability to resist the demand for immediate gratification; but all that such manifestations of mental impairment signify.

What do they signify?

They indicate, among other things, a voluminous sense of deprivation, and want, indicative of exhaustion of energy, and morbid consciousness. They indicate a general deterioration of mental capabilities, culminating in a loss of self-control, and demoralization of perceptions and judgments.

They signify well-marked departures from states of feeling and modes of thinking previously characteristic of individuals affected, the most generally accepted evidence of insanity recognizable in any given case.

I have never seen a person who had ceased to resist an inordinate desire for stimulants, that had not also become unnaturally irresolute; lacking continuity of purpose; failing in perceptions of duty; lost to all finer sense of shame, and feeling of affection; untruthful, and insincere.

The formerly prudent and sagacious, self-respecting and successful, business man is no longer to be trusted; if grasping and hardfisted before, his grip is lost, and fortune falls unheeded from his unnerved hands. A woman, proud, fastidious, conscientious, sensitive to praise, to blame, and shame; true to her husband and tender toward her child; yields to the impulse, neglects, forgets, wanders, is lost beyond redeeming power.

But it may be said that persons thus described are common drunkards, alcoholic demented not to be classed as dipsomaniacs.

There are indeed two classes of inebriates, quite distinct in some respects, requiring separate consideration.

These two classes of inebriates resemble in being alike subject to uncontrollable impulses to use stimulants, after experiencing

their effects, and in many other features. They differ as to the manner of development of such impulses and the duration of disorder manifested.

The one class comprises a large number of habitual drunkards who have induced morbid conditions of brain and other structures by long-continued, and gradually increasing, imbibition of intoxicants without precedent organic suggestions, or the importunate demands of exhausted and deprived structures. The other, less numerous, but more conspicuous, is made up of periodical drunkards; who "go on sprees,"—drink deep and recklessly "while the fit is on," and return to conditions of sobriety, of longer or shorter duration, with, in many instances, a complete revulsion of feeling respecting stimulants, amounting to abhorrence—many of whom, if not all, find some excuse for their morbid impulses in the fact that they have inherited unfortunate potentialities of brain-disorder; instabilities and eccentricities of nerve-structures, nearly allied to neuroses manifested in others as epilepsy, recurrent mania, or general fanaticism.

Shall we not be compelled to make some concessions respecting the insanity of this class of inebriates? Is it not among these drunkards that we find the true dipsomaniac, whose first, last and only manifestation of insanity is an uncontrollable impulse to use stimulants?

I do not see sufficient ground for such concession. The insanities of the periodical drunkard are correlative with the insanities of the chronic inebriate, while they continue to be manifested. The conditions of the two differ as the conditions of the periodical and the chronic maniac differ. Their differences of manifestations are as the differences of miasmatic fever—intermittent, remittent, and continuous.

The fact is, mania—mad desire for drink—not for drink's sake—but for the immediate happiness, or obliviousness, known to be obtainable by drinking—however suddenly or slowly developed, is not the best evidence of insanity presented by either of these classes of inebriates. Loss of ability to resist the importunities of exhausted and dying nerve structures for immediate relief; or to so intelligently estimate the relation of consequences to causes as to be enabled to wait for better results less immediately obtainable, (the highest degree of courage born of intelligence is expressed by deliberate waiting)—the loss of ability to make present sacrifice for future good, and endure some personal discomfort to save others from pain; (commonly accredited to a hypothetical

faculty of mind called will)—is an evidence of insanity more significant, in my estimation, than an inordinate desire for stimulants, however expressed; because such loss implies impairment of intellectual capabilities of the highest order of development: and the question may well be asked, if the inebriate is really insane before he has sustained such loss?

Of so-called kleptomaniacs I have had but little observation. I have seen examples, however, both in and out of hospital; belonging, evidently, to different classes.

Of those seen outside of insane hospitals, persons regarded as incorrigible thieves, and yet not held to strict accountability by society because of recognition of the uncontrollability of their impulses to steal,—or the low order of their intelligence; I have not believed that any one of them was insane—or impaired by disease. They seemed to me to be persons belonging to a defective class of healthy individuals; who by reason of arrest of development effected by lesions of nutrition, before, or after, birth; or the recurrence in descent of some ancestral peculiarity, had failed to reach the higher planes of mental capability occupied by the more favored classes,—hence incapable of ethical perceptions, and the self-controlling purposes of those whose actions are governed to some extent by reasoning, and judgment; at the expense, sometimes, of feelings, or natural desires. Because of the lower range of their perceptions this class of persons occupy a sentimental relation to property very different from that maintained by more intelligent and cultivated people. Impelled by a natural desire to accumulate goods,—(a desire that is essential to self-preservation, and pertains to the instinctive science that is inseparable from organization, corresponding to its necessities)—these undeveloped, defective, members of society do no violence to any sense of right by their thefts. As a matter of fact they do not “steal.” Like soldiers in time of war invading the country of their foes, they simply “reach for” and “appropriate” whatever they find available;—they do not steal!

That persons of this class are liable to become insane; or that the natural desire to accumulate may be exaggerated by disease; is not to be denied. But before pronouncing an incorrigible thief insane, other evidence of disease than that of a dominant desire to appropriate all manner of goods and chattels, without regard to values or uses, should be looked for, and found.

In asylum life we have all seen insane persons who manifested this propensity to accumulate, as a phase of mental disorder, but always associated with other features of derangement.

I have three patients now under observation, who exhibit well-marked depravities of consciousness, and ideas, respecting their relations to property.

A. B. Male—sixty—merchant—studied medicine when young, but found the profession not lucrative—formerly reputable in business relations—now impaired by long use of stimulants—not regarded as insane by family previous to admission to Sanitarium—soon after admission was detected in purloining little things that were not appropriate to his needs, and on investigation was found to be in possession of a hoard of miscellaneous articles of private and hospital property; for none of which he had any immediate use, or prospective necessity. This was a surprise to everybody who knew him in his better days. Was he insane? Evidently;—and subject to uncontrollable impulses to steal. But there were other evidences of insanity rapidly developed. He manifested uncontrollable impulses to tell lies, and boast of enormous wealth that he was not possessed of. Moved by uncontrollable impulses he would sing religious songs, and talk of religious experiences. Later on, although old, emaciated, wrinkled, lame,—he affects airs of gallantry toward laundry women, and kitchen girls; and is, no doubt, becoming morbidly erotic.

Six months before admission to asylum, A. B. might have been classed as a dipsomaniac. Six weeks after—free from intoxicants—he might have been pronounced a kleptomaniac. He is really suffering progressive dementia effected by alcoholic impairment of his brain and other organs.

C. D. Female—thirty-nine—widow—mother—three or four children—good society—naturally vivacious and unstable—in a state of mental exaltation when admitted to Sanitarium—regarded as “hysterical” by friends, who suspected insanity only because of a discovery that she was taking things that did not belong to her; much to their surprise and mortification. A history of the case revealed to me the fact that her then condition was a morbid state, first manifested as, what might be called, if it is not, by the French: *Folie Gynécologique*; or by the Germans: *Mutterleib-krankheitwahnsinn*, or in plain English, *womb disease-mania*, with uncontrollable impulses to be examined and treated, locally, even surgically, by some specialist. Since admission to hospital states of depression have succeeded exaltations, and at times she has suffered from auditory hallucinations of a distressing character. She no longer seems to be impelled to larceny, but is incapable of telling the truth, and is decidedly erotic.

E. F. Female—fifty—married—mother—good society—admitted in a state of mental depression with suicidal suggestions. For a time she complained of extreme poverty, but with improved nutrition she began to accuse everybody of stealing her garments; then claimed everybody's clothes as her property; and now laments the loss by robbery, of, as she says, "the most magnificent wardrobe ever brought to this house,—sealskin cloaks, India shawls, heavy silk dresses, diamonds of untold value, &c., &c." She would not be classed as a kleptomaniac, and yet her desire for property is inordinate, and morbid; and her ideas of possessory rights depraved.

Of so-called pyromaniacs, among five thousand insane persons of whom I have had professional oversight, I do not recall an example of pyromania, or mad desire with impulse to burn property.

The histories of such cases, as given by others, is not thereby discredited; but analogically considered, it seems to me more than probable that in cases of this kind such mad desires and impulses were not the only evidence present of insanity.

Delusions and hallucinations respecting fire are not uncommon features of insanity. I recall the form of one maniacal woman who cried fire! fire! fire! every time she was agitated, by day or night for many months in succession. I have known insane persons to attempt firing their clothes, bedding, or other furniture; but always with some motive other than the gratification of a mad impulse to destroy, or to see things burn. I had one patient who entertained a delusion that he was doomed to die by fire. He had become insane soon after escaping from a burning hotel in St. Louis, and finally took his own life by setting fire to a bed-sheet with a match accidentally found, and inhaling the smoke and flame. I have seen madmen who entertained the delusion that the world was already on fire; and others, almost as mad, who were in constant apprehension of an impending catastrophe of the kind. But none of these lunatics would furnish examples of valid pyromania.

So much for clinical testimony.

The testimony of science bearing upon the questions under consideration, so far as I am capable of presenting it in a hastily drawn summary, may be stated thus;—

(A) All functional activities of whatever mechanisms, are responsive to excitations of force, or energy, while undergoing transmutation from lower to higher, or higher to lower, planes of activity, and capability, effected by variations of motion; all concomitant phenomena being but manifestation of such changes.

(B) Continuity and homogeneity of structure, of whatever mechanisms, imply continuity and homogeneity of capabilities and functions.

(C) All brains, from the smallest to the largest, from the simplest to the most complex, are developed by continuous growths of rudimentary organs, and not by additions of new, heterogeneous, and independent structures.

(D) The phenomena of consciousness, ranging all the way from simple sensation to complex thought, are concomitant with, inseparable from, and correspondent to, the functional performances, or work, of which brains are, alone, capable, viz.—the transmutation of vital force, or the energy of organization, into psychic force, or the energy of mind.

(E) The evolution of brains being by extensions of rudimentary organs, and not by superposition of successive strata, their inherent capabilities, however modified or increased by extension, are but modifications or extensions of primitive capabilities, and not additional, new, and independent, faculties.

(F) The order of retrogression being obverse of progression under all known circumstances—decrease of capabilities once developed, however effected, must begin with the ultimate, and proceed, retrogressively, toward the primitive. That is to say; any impairment of brain-structures affecting mental capabilities pertaining to intermediate degrees of development necessarily affects the capabilities of all ulterior degrees of development, but not, necessarily, all anterior degrees.

(G) Capabilities of ethical perceptions, moral concepts, rational judgments, congruous imaginations, &c., in the order stated, beginning with the highest and latest attained by man, pertaining, as they do, to ultimate developments of brain-structures;—all insanities effected by impairment of capabilities pertaining to lower degrees of development must, necessarily, implicate the higher and be manifested by some degree of demoralization, depravity of judgment, incongruity of imagination, &c.

But I will detain you no longer with testimony of this character. If it is, as thus presented, of any value in this discussion, enough has already been said to quicken the motion of sensitive thinkers, and indicate the direction of investigation that may be profitably adopted by men who recognize scientific pursuit of any object as worthy of their highest capabilities, and conclusions thus reached as more trustworthy than such as are merely “jumped at” without careful consideration of the whole ground intervening.

GASTRIC, SECRETORY AND OTHER CRISES IN GENERAL PARESIS.*

BY HENRY M. HURD, M. D.,
Superintendent of the Eastern Michigan Asylum, Pontiac.

The term "gastric crisis" has been applied to periodical attacks of pain at the epigastrium, associated with vomiting, headache, and sometimes diarrhœa occurring suddenly in the course of locomotor ataxia, without assignable exciting cause. The ejecta from the stomach are generally clear fluids free from any admixture of food; sometimes they contain bile and blood. In rare instances the gastric crisis precedes the development of locomotor ataxy, and is one of the first symptoms. More commonly, it is developed in the course of pronounced tabetic disease and is the sequel of other grave symptoms. How the crisis arises is still in dispute, and authorities are not agreed upon its pathogenesis. That it is a disturbance of function from defective innervation, consequent upon progressive disease of the spinal cord and medulla all agree, but whether the disordered function is due wholly to an irritation at the origin of the pneumogastric, or to a combined irritation of the pneumogastric and sympathetic, is still in dispute. The existence of pain and altered secretion would seem to lend countenance to the latter hypothesis. Laryngeal, intestinal, vesical, cardiac, genital and rectal crises of similar character and analogous origin have been described as occurring in the same disease. Secretory crises, pointing to grave disturbances in the sympathetic system are also common. As far as I can learn, however, from a careful examination of the literature of general paresis, no mention has ever been made of similar crises occurring in this disease. It is my purpose in this brief paper to call attention to the gastric and other crises of general paresis. To more fully illustrate the character of these crises among paretics, I will report two cases somewhat in detail.

CASE I.—J. M. V. H., at present under treatment at the Eastern Michigan Asylum, is forty years of age, a native of Michigan, and an industrious farmer. His father was a man of correct habits and highly respected, but eccentric, neurotic (a stammerer), and unsuccessful in his profession, which was that of a lawyer.

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

His mother possessed a nervous organization, but is still living at an advanced age. The patient has always been peculiar and somewhat unsettled, being of a roving disposition, but neither intemperate nor licentious. After partially completing a college course, he relinquished study to enter the army during the late civil war, and served faithfully for about a year. After his discharge from the army he engaged in a variety of occupations in the west and northwest, and suffered considerably from exposure and hardship. On one occasion he received a blow from a club and sustained a severe injury upon the head which rendered him unconscious for several hours. This was followed by a period of excitement of eight days duration, from which he eventually recovered. On another occasion, from exposure to cold, he had facial paralysis with ptosis of the right eyelid and divergent strabismus of the right eye. The latter infirmity still persists notwithstanding operative procedures at the hands of an eminent oculist to overcome it. The strabismus is undoubtedly of central origin. Although an unremitting, almost intemperate worker, he has never been very successful in his undertakings. For a year prior to his admission he had been depressed physically and mentally; had lacked good business judgment, and had seemed more than usually unsettled. About a week previous to coming he suddenly developed delusions of great wealth. He contracted to purchase cattle in his immediate neighborhood at extravagant prices, and talked freely of spending \$100,000 per day, until he secured complete control of the cattle market. Upon admission he was found excessively noisy, loquacious, excited and full of business. His gait was markedly ataxic, the tendon and pupillary reflexes were abolished and the hand pressure diminished. He could not stand firmly with his eyes closed, and walking in the dark was impossible. He was wakeful at night. After the lapse of a week his noisy excitement and extravagant delusions had disappeared, but a state of great elation persisted for nearly two months. At the end of this time he displayed some depression, was extremely hyperæsthetic and suffered acutely from deranged sensations. He complained that sounds went through him "like a knife," and had violent headaches, "pins and needles" sensations in his limbs and a sense of "crawling all over." To prevent a complete loss of self-control he retired to bed and avoided all active exertion. He suffered severely from a sudden sense of constriction in his left side and an inability to expand his chest. The acute pain and sense of constriction in the side—the "hide

bound" feeling, as he expressed it—shifted to the left hip whenever he attempted to walk about. After a few days he had a gastric crisis, and vomited steadily for eighteen hours, notwithstanding remedies constantly administered to relieve the symptom. The attack was not due to any indiscretions or errors in diet, and no adequate exciting cause existed. The ejected matters were fluid and unmixed with any food, semi-digested or otherwise. When the vomiting ceased he was much less hyperæsthetic and the nervous storm seemed to have spent its strength. About a month later he had a similar gastric attack which was severe, but not as protracted as the former one. Shortly after, he began to have profuse perspirations at night which saturated both clothing and bedding. They were succeeded in their turn by paroxysms of profuse salivation, occurring regularly in the middle of the forenoon and during the early part of the night. At the first attack he was awakened from a sound slumber by the saliva welling up in his mouth and overflowing at the corners. The attacks lasted about an hour and the flow of saliva was so excessive as to fill a spittoon. During the following month he had a return of the former profuse perspirations, but gradually improved under the use of one-half drachm doses of fl. ext. ergot. Three months later they again recurred after slight exertion in walking. A few days ago he complained for several successive days of paroxysmal attacks of pain high up in the rectum, corresponding in location with the rectal crises mentioned by writers on locomotor ataxia. This patient still remains in the asylum. His mind is feeble and he is childish and lacking in endurance. His extravagant delusions have passed away. The ataxia is stationary, and he is now able to take long walks in the open air each day. His handwriting is not perceptibly changed, and he has no word-blindness.

CASE II.—W. J. A., age thirty-two, a railway conductor, of temperate parentage, and free from predisposition to insanity or nervous disease, was admitted to the Eastern Michigan Asylum in March, 1880. He had been an industrious, capable man, but intemperate and licentious. There was no history of syphilis. Four years previous to his admission he had a sunstroke, and afterwards showed peculiarities, but had been able to work up to the previous November. Upon admission he had predominant delusions of fear and apprehension. His pupils were unequal, and the right dilated; his speech drawling and his gait inco-ordinate. After a few days he began to soil his bed involuntarily at night.

At the end of two weeks he was excessively distressed under an impression that he was about to die, and his pupils became widely dilated, his pulse slow and his surface cold. Prompt stimulation relieved some of his symptoms, but he continued fearful of impending death. He declared, with groans and tears, that his body was melting away, his teeth gone, his penis destroyed, etc. On the tenth of April, about one month after admission, he had a gastric crisis, which is thus described in the medical notes: "After a forenoon, during which he seemed more than usually cheerful, and had been able to engage in games, while standing at the window conversing with his attendant, he suddenly exclaimed, 'I am dead,' and fell forward apparently lifeless. He was visited immediately, and but for respiration, which was regularly performed, no sign of life was present. He had no pulse; his face was waxy and expressionless; his eyes forcibly shut, an attempt to open them being unsuccessful, owing to a strong voluntary closure of the lids. The foot of his bed was elevated, and warm applications were made to the surface of the body. He could not be induced to swallow. He resisted an attempt to open his mouth, striking at those in attendance, and clenching his teeth firmly. His pulse slowly returned, beating at first twenty to thirty per minute. Stimulants were freely administered by the nasal method, until a disposition to swallow returned. From time to time his countenance became distorted from great pain, and he screamed and found relief by vomiting small quantities of a dark liquid. Later his bowels moved twice, the passages being dark, liquid, and without fecal odor. Stimulants seemed imperfectly appropriated by the stomach, and finally hypodermics of brandy were resorted to with immediate benefit. Subsequently one-eighth grain of sulphate of morphia was given every three hours. At two o'clock on the following morning, about fifteen hours after the commencement of the attack, he ceased to vomit and slept." There were subsequent attacks of a similar character, but none as severe as the one detailed. About ten days later he died suddenly in a paretic seizure.

In the first mentioned case there were gastric and rectal crises—also profuse salivation and perspiration. In the second a gastric crisis of extreme severity, abolishing the action of the heart, followed by vomiting and liquid stools. In reviewing the cases of general paresis, which have been under treatment at the Eastern Michigan Asylum, I find that other similar attacks are not wholly unknown. In three other cases there were salivary crises, charac-

terized by a sudden, causeless flow of saliva. In one of the cases the patient, a female, had delusions of great extravagance. She believed herself to be a powerful and important personage, one hundred years old. She had no special ataxia in her gait, but her speech was drawling, and at times almost unintelligible. At her best she "scanned" when talking. In writing she omitted words after the manner of male paretics. She had daily attacks of great mental dullness, accompanied by an excessive flow of saliva of comparatively brief duration. This condition followed a paretic seizure. In another case, also a female, there was a ravenous appetite, periods of noisy confusion, delusions of wealth, quivering of the lips, tremulousness of the tongue, a peculiar "stiffness" in the gait, and a loss of the fine lines of expression in the countenance. In this case there was, in addition to the salivary crises, at certain times a hypersecretion of urine, and an inability to control the sphincters of the bladder or bowels. Later in the disease there was retention of urine. She had periods of screaming, in consequence of severe paroxysms of pain in the rectum, evidently a rectal crisis. She died suddenly in a paretic seizure.

In two other cases there were vesical crises, characterized by pain in the region of the bladder, producing a condition of collapse, a profuse secretion of urine, and a total inability to void it. When the urine was subsequently drawn by the catheter it was bloody in both cases, but did not continue so, although the catheter needed to be used for a period of two or three days. In another case there were repeated genital crises, characterized by violent pain in the testicles, which caused the patient to utter frightful screams, and to injure the parts by pinching and bruising them until they were black and blue—evidently to quiet intense pain. I have never seen any examples of the laryngeal crises described by writers on locomotor ataxia. The pain crises of the latter disease also seem to be almost wholly absent in general paresis. I can not now recall a single case where the fulgurant pains in the calves of the legs were a prominent symptom. The same is true of cardiac pain. Profuse perspiration, both general and unilateral, are common symptoms, and are probably more frequently met with in general paresis than any other secretory crises.

The question now arises, in what classes of paretics are crises to be expected, and further is there any apparent connection between the degree, character and seat of the ataxia and any particular form of crisis? In a general way there would seem to be a connection between the degree of ataxia and the form of the crisis.

When a salivary or perspiratory crisis occurs alone, independent of any other crisis, ataxia is not generally a marked symptom. If however, gastric crises are associated with secretory crises, ataxic symptoms, in my experience, are a marked feature of the mental disease. In some instances of this sort, in fact, the ataxic symptoms are so prominent as to suggest that a general paresis has been grafted upon a pre-existing locomotor ataxia. The experience of every student of mental disease leads him to consider the relation between the two diseases as much more intimate than writers upon nervous diseases have acknowledged. In how many cases of senile or chronic dementia ataxic symptoms, bladder troubles and paralyzed sphincters are present, in which it is impossible to determine which set of symptoms had precedence. The alienist is prone to ascribe the ataxia to the mental defect, and the neurologist to regard the mental defect as the legitimate outcome of the slowly increasing degeneration of the spinal cord. Is it not highly probable that the mental defect and the ataxia have gone hand in hand and are manifestations of the same diseased process. So also of the relations of general paresis and locomotor ataxia. It is impossible to say where one ends and the other begins. The wide-reaching and complex relations of the pneumogastric with its sensory, motor, vaso-motor, inhibitory, excito-secretory and excito-motor functions would seem to suggest, *a priori*, that gastric crises are most liable to occur of any of the crises of paresis, and when occurring would affect the whole economy the most profoundly. In cases characterized by secretory crises alone, the amount of ataxia, except in speech, has not been great.

The treatment of these various crises may be dismissed in a few words. In the gastric crises dependence should be placed upon stimulants and morphia, hypodermically. The symptoms are urgent, and prompt action should be taken. Morphia sufficient to quiet the pain and vomiting, and brandy or ammonia enough to sustain the heart's action should be given at once. In the salivary crisis astringents can be used locally, like golden seal, tannin, tannin and glycerine, in connection with atropia or hyoscyamine. In profuse perspiration, ergot or ergotin hypodermically are of service. In the rectal and genital crises nothing will prove of any permanent benefit but some form of opium. In the vesical crises it is all-important to relieve the bladder with the catheter, as the vesical pain seems to promote a hypersecretion of urine, which in its turn incites the pain and the general prostration.

CLINICAL CASES.

CASES ILLUSTRATIVE OF THE LOCALIZATION OF CEREBRAL FUNCTIONS.*

BY WILLIAM L. WORCESTER, M. D.,
Assistant Physician Michigan Asylum for the Insane, Kalamazoo.

Both from the theoretical and practical standpoint, the question of the more or less complete limitation of the various cerebral functions to circumscribed regions of the cortex is one of great interest. The following cases, which have come under my observation at the Michigan Asylum for the Insane, have seemed to me worthy of mention, more as confirming observations already made than as throwing any new light on the subject.

The first case to which I will ask your attention came under my care during the first few weeks of my service. My lack of experience at the time may, perhaps, excuse, in part, the imperfection of my observation of the case.

The patient, a farmer, of French descent, aged thirty, had been under treatment nearly a year, for epilepsy, which was said to be of two years' standing at the time of his admission. His case presented no features of very special interest until January 26, 1878, when, after a very severe convulsion, he remained in a state of alarming collapse. The radial pulse was almost imperceptible, the surface was cold, and he seemed in danger of immediate dissolution. He rallied somewhat, under the administration of stimulants, but remained for three days in a stupid condition, and never regained strength sufficiently to enable him to be long out of bed.

Shortly after the attack it was observed that there was a slight lack of innervation of the right side of the face, only noticeable when the muscles were called into action, as in talking, or, more especially, in smiling. On the 11th of February, the patient, having apparently regained about his ordinary mental condition, a pretty careful examination was made, without discovering any paralysis, except as above mentioned, or any impairment of cutaneous sensibility, although he stated that he had experienced transient numbness of the hand at times. He also said that for

*Read before the Association of Medical Superintendents of American Institutions for the Insane at Detroit, Michigan, June 14-18, 1887.

several days he had hallucinations of smell—at first constant, but of late transitory. On one occasion he got up in the night, imagining that the room was full of smoke. Of late, he had noticed, at times, an odor which he compared to the vapor of alcohol, which passed away quickly, and which he thought took the place of a convulsion. I am sorry to say that no test of the sense of smell was made. I find no record of any further examination, and my recollection is that no marked change occurred in his general condition until his death, which occurred on the 28th of February, in consequence of a series of tonic convulsions, the most marked feature of which was opisthotonos, affecting, mainly, the muscles of the back.

At the autopsy, on inspection of the inferior surface of the brain, a small spot of red softening was found at the most prominent point of the left gyrus uncinatus. As I wanted a brain for dissection, it was not opened until after it had been hardened in alcohol. It was then found that a focus of red softening existed in the white matter of the anterior part of the left temporal lobe, extending to the surface, externally, as above mentioned, and internally, involving the pes hippocampi in the floor of the descending cornu of the lateral ventricle. The portion of the hippocampus major which was not discolored was swollen and softened. A very small focus of softening, without discoloration, about the size of a large pea, was also found in the white matter of the frontal lobe of the same side. No other gross lesions were found, but the perivascular spaces were very generally dilated, so as to give thin sections of the brain a worm-eaten appearance.

There seems to be good reason, both on anatomical and experimental grounds, to believe that the anterior and inferior surface of the temporal lobe has special relations to the sense of smell. Clinical evidence on that point is not, so far as I can ascertain, very abundant. Luciani and Seppilli refer to cases reported by Sander, Westphal and Schlager, none of which are accessible to me, in which anosmia and hallucinations of hearing resulted from lesions of the inferior surface of the frontal lobe, but in these cases the olfactory bulbs were directly involved. They also refer to cases of embolism of the artery of the fissure of Sylvius, in which anosmia of the nostril on the side of the lesion occurred. I have failed to find accounts of autopsies in which lesions of the temporal lobe had been followed by olfactory disturbance. I think, however, there can be no reasonable doubt that the hallucinations in my case were connected, in some way, with the morbid

process, and to my mind, it confirms the hypothesis of a participation of the temporal lobes in the sense of smell.

Ferrier, in the first edition of his work, (*Functions of the Brain*, p. 175, et seq.) concludes, as the results of experiments, that the gyrus hippocampi is the seat of tactile sensibility, destruction of it producing anæsthesia of the opposite side. I have not seen the last edition of his book, but in a recent debate on the localization of the muscular sense, he says:* "As to the cortical localization of the so-called muscular sense, I hold that the centre for this and for all forms of tactile and common sensibility is the falciform lobe," by which I understand him to mean the convolution of the corpus callosum, in addition to that of the hippocampus. So far as I am aware, this view is not shared by any other prominent investigator. The general opinion of those who assent to the doctrine of cerebral localization, is that tactile impressions are perceived in that part of the parietal lobule electrical stimulation of which produces muscular movements—the so-called motor region. The question, therefore, becomes of some interest, whether the case under consideration throws any light on this point.

I think I am entirely safe in saying that there was no very extensive and profound impairment of tactile sensibility. It is also true that the cortex of the region in question was not extensively involved, but the parts lying immediately underneath were affected to such an extent that it can hardly be supposed that its connections remained unimpaired. It seems to me very improbable that there could be so little disturbance of cutaneous sensibility if Ferrier's view as to its centre is correct.

In the following case, symptoms of partial word-deafness were associated with lesion of the first left temporal convolution.

The patient, a Frenchman by birth, aged fifty-eight, was received on the 25th of March, 1885. Before the war he had been a rather prosperous business man in a southern State. The war ruined his business. He was drafted into the Confederate army, taken prisoner, and subsequently enlisted into the Federal army. Since the war he had supported himself by giving lessons in French and German. He had probably been rather a high liver in his more prosperous days, and suffered a good deal from gout, of which he had repeated attacks while a patient in the asylum.

About two months previously to his admission he had an illness, of which no very satisfactory account could be obtained. He

* "Brain," Part XXXVII, p. 23.

was stated to have suffered from giddiness, to have been at times almost unconscious and very helpless, and to have lost the power of speech.

At the time of his admission he was still very feeble; could walk a little with the help of a cane. He is stated by Dr. Ward, who received him, to have dragged the right foot at that time, but when he came under my care, about three months later, there was no noticeable difference in his power over the extremities of the two sides. He always walked stiffly, with short steps, but it was not easy to determine just how much of the impairment of locomotion was due to paralysis and how much to stiffness from gout.

At the time of his admission, and for some time afterward, he spoke an almost completely unintelligible jumble of English, French and German words. He often mispronounced words, but this seemed due to want of a correct idea of how they should be pronounced, and not to any paralysis of the vocal organs. He was perfectly well aware that he was not expressing himself properly, and his efforts to find the correct expression were often painful to himself and others. It was also evident that he often failed to understand what was said to him. After repeated trials it would frequently be impossible to make him comprehend a perfectly simply verbal direction or question. The sense of hearing seemed entirely unimpaired. He was emotional and irritable, becoming angry on very slight provocation.

During his residence in the asylum he improved somewhat, both mentally and physically, but there was no essential change in the character of his symptoms. He became strong enough to walk to a considerable distance. He engaged with considerable interest, but no great skill, in playing chess and checkers, and spent a good deal of time in reading—with just how much comprehension of what he read, it was not easy to determine. During the whole time, it was evident that he often had difficulty in comprehending what was said. He gained somewhat in power of oral expression, and during the latter part of his life seldom confused different languages in conversation, replying in that in which he was addressed. His sentences, however, were always very much broken, with numerous repetitions of the same word. During the whole time he wrote pretty frequent letters to a friend, and during the latter part of the time was able to express himself much better in writing than orally. The following letter, bearing date May 11, 1885, will give a better idea of his style of expression than any description:

"Dear friend dearest my love George I pense you to come see you to come sure come be to be sure the evening this evening.

I long to essaye to hear me this week to come to come this week you sure to come me assure to see you come. I hope you be very sure me come this day arrive me possible this sure come sure to come to see dearest my friend now to have you assure us to make be this your day come this week ready your me to write your coffey this week this day if possible.

Make my your happy to hear you sure this evening to come this week.

My love forever sure to come

dear friend

ARTHUR D'A."

This letter, like all that he wrote, was written in a neat and perfectly legible hand, with but few errors in spelling or capitalization. He frequently omitted punctuation marks, but when he used them it was, as a rule, appropriately. He was never able to express himself, in conversation, much better than as above, but the following letter will show that he gained very materially in command of written language:

OCTOBER 6, 1885.

Dear George:

Your letter was received last night. Was glad to have you write, and wish to assure you of my sympathy in your poor state of health. Shall be pleased to have you come and see me if able, if not please write and let me know how you are, for I shall always feel anxious for you when so unwell.

Believe me your best friend as ever,

ARTHUR D'A.

On the 5th of January, 1887, the patient was found in a comatose condition, from which he never rallied. There was no appearance of hemiplegia, as all the extremities moved when the skin was pinched or pricked. He died on the tenth.

At the autopsy, extensive degeneration of the blood vessels of the brain was found; the right vertebral artery was occluded a short distance below its junction with the left to form the basilar, and the left middle cerebral was partially obstructed near its origin. On the upper surface of the first left temporal convolution the cortex was atrophied for a space of about one and one-half inch in length by one and one-half inch in breadth. The lesion was evidently an old one; doubtless there had originally been softening from arterial obstruction, and subsequent absorption of the ne-

crossed tissue. A small, superficial patch of softening was found in the right gyrus supra-marginalis. The interior of the right optic thalamus was mostly transformed into a diffuent mass. The portion of the right nucleus caudatus, immediately opposite the anterior end of the optic thalamus, was shrunken, evidently from atrophy of a patch of old softening, which also affected, to a limited extent, the subjacent portion of the internal capsule.

It is, I presume, hardly necessary for me to enter into argument to prove the connection, in this case, of the affection of speech, and the impairment of power to understand spoken language, with the lesion of the superior temporal convolution. The relation of word-deafness to disease of the left temporal lobe seems to be about as well established as that of aphasia to the third left frontal convolution. Luciani and Seppilli* have collected twenty cases of complete inability to understand spoken language, with preservation of the sense of hearing. In every one of these there was lesion of the first left temporal convolution. In fourteen, the second temporal convolution was also affected, while the largest number of instances in which any other gyrus was involved was six, in the case of the left gyrus supra-marginalis, which, from its contiguity might be expected to be frequently affected in lesions involving the first temporal. The incompleteness of the symptoms in my case is easily understood, in view of the small extent of the diseased portion. The defect of language would be accounted for by the loss of memory of words, which is doubtless dependent upon the same portion of the cortex as their original perception. This has been a prominent symptom in most of the cases which I have seen reported. The superior command of written language would seem to be readily accounted for by the integrity of the visual centres.

The following case is, perhaps, of enough interest to justify quotation, being, so far as my recollection extends, the earliest history of this affection which has come under my notice. It is found in the "*Zoönomia*" of Erasmus Darwin, (4th American edition, vol. II, p. 426.)

"The following curious account of this defect of association of ideas, with audible but not with visible symbols, was sent me by Dr. Darwin, of Shrewsbury.

"The case of an old man lately occurred to me who was superannuated; his hearing and vision were perfect, but he could only

* *Functions-Localisation auf der Grosshirnrinde.* (German translation,) pp. 205-214.

call up a train of ideas from the latter. When he was told it was nine o'clock, and time for him to eat his breakfast, he repeated the words distinctly, but without understanding them. His servant put a watch into his hand; 'why, William, have I not my breakfast, for it is past nine o'clock,' he would say with expression, that showed he felt what he said. On almost every occasion his servants conversed with him by visible objects, although his hearing was perfect; and when this kind of communication was used, he did not appear impaired in his intellect. This state came on from a stroke of the palsy, and till he and his attendants used this kind of language he was quite childish."

There can, I presume, be little doubt about the character of this case, although the command of language would seem to have been preserved in an unusual degree.

In the following case, beginning with left crural monoplegia, the notes of the autopsy, made at the time, were unfortunately mislaid, and the fact was not discovered until it was too late to fully supply the deficiency from memory. This deficiency, however, is of no special importance so far as the special point illustrated by the case is concerned.

The patient, a colored man, sixty-six years of age, complained, on the 17th of November, 1886, of numbness and weakness of the left leg. This increased rapidly, and when I saw him, at the evening visit, he was unable, when sitting in a chair, to raise the left foot from the floor. There was no paralysis of the facial muscles, and the power of the left hand was but slightly, if at all, impaired. Sensibility in the left lower extremity was evidently diminished, but his mental condition was such that only rough tests could be made. He retained considerable use of the arm until the morning of the 21st, when that also, rather suddenly, became paralyzed. At the first examination, diagnosis was made of lesion of the upper part of the right anterior central (ascending frontal) convolution. It was now supposed that the disease had extended so as to involve the middle portion of the same gyrus. He gradually failed in strength, and had several convulsive seizures. Death occurred on the morning of December 10th. At the autopsy the cerebral arteries were found to be very extensively diseased. A superficial patch of softening was found, involving the upper part of the right anterior central convolution and extending to the paracentral lobule on the internal surface of the hemisphere. Several other spots of softening were found, the precise locations of which I am not now able to state. None of them, however, were in the excitable area of the cortex.

The lesion discovered accounted satisfactorily for the paralysis of the lower extremity. The cortical centre for the arm is usually located lower than the lesion in this case extended, but parallel cases are not wanting. Cases 21, 23 and 25 of Exner's collections seem to have been very similar, clinically as well as anatomically, to this case. I am not, however, able fully to account for the completeness of the paralysis in the upper extremity.

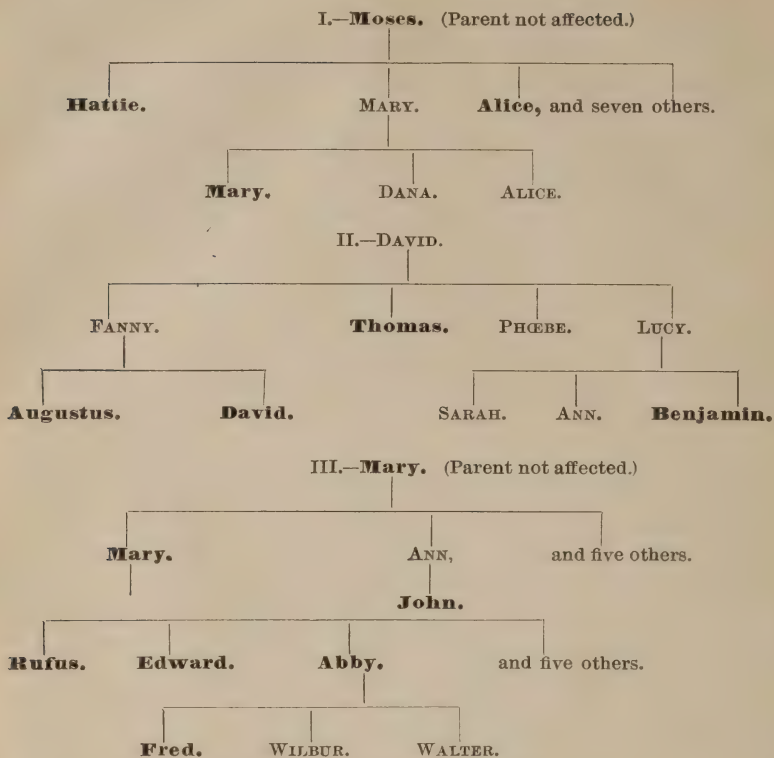
HEREDITARY CASES OF PROGRESSIVE MUSCULAR ATROPHY.

BY A. H. HARRINGTON, M. D.,

Assistant Physician, Danvers Lunatic Hospital, Danvers, Mass.

In February last there was admitted to the Danvers Lunatic Hospital a patient who, aside from mental trouble, was suffering from a very chronic form of progressive muscular atrophy. He stated that he had relatives afflicted with the same malady and that there were traditions that it had appeared in several generations upon his mother's side. Surmising that this might be one of those families, a few of which have been placed on record, where heredity appears to have exerted a powerful influence in propagating the disease for generations, an inquiry was begun with the purpose of verifying the patient's statements. This resulted in bringing to light fifteen well-authenticated cases, all springing from a common ancestry and extending over a period of about one hundred and fifty years. How many other cases there have been it is impossible to ascertain. Of some, traces have been obtained here and there, but of so indefinite a character that they have not been included in this account.

The following *schema* will readily show the manner in which transmission has occurred. It has been found convenient to arrange them in three groups. Moses, the head of group I, is a direct descendant of one of two brothers; David and Mary, the respective heads of groups II and III, are direct descendants of the other brother, the said Mary being the paternal aunt of the said David. The names in heavy type represent the individuals affected:



From the above we are able to deduct the following facts. Of these fifteen cases nine are males and six females. They are the offspring of nine marriages. Transmission through the females to children has occurred in eleven cases, eight being males, through the male to children in four cases, three being females. Where the mother herself has been affected, the disease has been transmitted to children five times, where the father has been affected, twice. There are six cases whose parents were not affected.

It is said that the male sex shows a much greater tendency to the disease than the female. Out of one hundred and seventy-six cases collected by Friedreich only thirty-three were females. Another peculiarity is for the disease to be transmitted through the female rather than through the male as shown in the cases described by Hemptenmacher. While the cases being cited present exceptions, yet it may be seen that in the majority of instances they conform to these two principles.

Trousseau mentions a family in which the great-grandfather, grandfather, father and son suffered from the disease. A still more striking example of atavism is presented in group III where it will be observed that a mother, one child, four grandchildren and one great-grandchild are all affected.

Eight of these fifteen cases are living. I have visited those within my reach, inquired into their history and made a personal examination when permitted. The following is a brief account of a few of these cases:

Group I—Lydia, æt. forty-nine, dressmaker, when thirty-five years of age, first began to notice the affection in her feet. At present there is marked atrophy of all the muscles of the feet with flexion of the toes. The muscles of the lower legs are atrophied, but in a less degree. As yet there have been no symptoms connected with the upper extremities.

Alice, sister of the preceding, died, æt. fifty-three, of pulmonary disease. She began to be affected in the lower extremities at about the age of thirty-five. During the last five years of her life, her upper extremities began to show the disease.

Group II—David, æt. sixty-five, muscles of the hands and feet much atrophied, fingers and toes contracted in flexion. Began to be troubled before he was twenty. Has followed the occupation of teamster nearly all his life.

Group III—Edward, æt. fifty-two, referred to as the patient now in the hospital. States that his trouble began at about fifteen years of age, and nearly simultaneously in the upper and lower extremities. For a few years the disease advanced pretty rapidly, but since the age of thirty-five, there has been no marked progress unless it is increasing contractions. At present there is atrophy of all the muscles of the hands and fingers, with a lower degree of wasting of the fore-arm. There is a similar condition of the feet and legs. For the greater part of his life he has been a stitcher on shoes; his last occupation was that of a peddler of small wares.

The history and present condition of his brother Rufus and sister Abby correspond so closely to his own that they would be essentially repetitions. They both began to be affected at about the age of eighteen. In Abby's case the affection appeared in her feet nearly two years before it showed itself in the hands. Rufus is a house-painter, and is still carrying on his occupation. Abby is able to do her housework.

Fred, æt. twenty-nine, sandpaperer, began to be affected in the

feet when eighteen years old, and a year later symptoms appeared in his hands. To-day his upper and lower extremities are affected nearly as much as in the three preceding cases.

In this collection of cases, so far as I can learn, the disease has almost always appeared before the age of twenty, has advanced up to a certain point, after which its progress has been extremely slow. In no instance can I find that parts above the elbow or knee have been invaded to any extent, and no death has been attributed to this affection. The general health does not appear to suffer in any way, neither does longevity seem to be affected. One of these cases, it is said, lived to be a centenarian. Some of them have reared large families of children; they have all been able to indulge in some form of manual labor, by which a livelihood has been obtained, and I have yet to learn that one of them became a pensioner upon his friends until late in life, when causes connected with senility were more accountable than the life-long disease.

Edward is the only instance of insanity in the family within the recollection of his friends. The healthy members are robust-looking individuals, and the family history does not reveal any other neurosis. A marked contrast is presented between the course of the disease in this family and that in the Wetherbee family of Western Massachusetts, reported by Dr. W. A. Hammond. In the latter the disease did not appear until the subjects were well advanced in adult life, when its progress was comparatively rapid, ending fatally in a few years.

These cases are very useful as showing the fact that progressive muscular atrophy of *hereditary* origin is not necessarily a fatal malady; that it may pursue an extremely chronic course; that, so far as general health and longevity are concerned, it may be innocuous, and finally, that, after advancing to a certain point, it may lose essentially its *progressive* character.

I feel that I should be betraying a confidence were I to publish the names of these people in full. I therefore represent the family name of their common ancestry as follows: P*****. Should cases springing from this same source be observed by others, I think that the name would be readily recognized. The people who have formed the subject of this paper are inhabitants of Eastern Massachusetts. The collateral branches are numerous and are found in every part of the country.

I am indebted for family data in this paper to a carefully prepared genealogy, published a few years ago, in the absence of which I could not have traced these cases to a common parentage.

PROCEEDINGS OF THE ASSOCIATION OF MEDICAL
SUPERINTENDENTS OF AMERICAN INSTITU-
TIONS FOR THE INSANE.

The Forty-First Annual Meeting of the Association was called to order at ten o'clock A. M., Tuesday, June 14, 1887, at the City Hall, Detroit, Michigan, by the President, Dr. H. A. Buttolph.

The minutes of the last annual meeting were read by the Secretary, Dr. John Curwen.

The following gentlemen were present during the sessions:

Andrews, J. B., M. D., Buffalo State Asylum for the Insane, Buffalo, N. Y.

Barksdale, R., M. D., Central Lunatic Asylum, Richmond, Va.

Bennett, E. O., M. D., Wayne, Mich.

Bland, W. J., M. D., Hospital for the Insane, Weston, W. Va.

Blumer, G. Alder, M. D., State Lunatic Asylum, Utica, N. Y.

Bowers, J. E., M. D., Hospital for the Insane, Rochester, Minn.

Brown, J. P., M. D., Lunatic Hospital, Taunton, Mass.

Burr, C. B., M. D., Assistant Superintendent Eastern Michigan Asylum, Pontiac, Mich.

Burrell, D. R., M. D., Brigham Hall, Canandaigua, N. Y.

Buttolph, H. A., M. D., Short Hills, N. J.

Callender, John H., M. D., Hospital for the Insane, Nashville, Tenn.

Campbell, Michael, M. D., East Tennessee Hospital for the Insane, Knoxville, Tenn.

Chapin, John B., M. D., Pennsylvania Hospital for the Insane, Philadelphia, Pa.

Clark, Daniel, M. D., Asylum for the Insane, Toronto, Ont.

Clarke, C. K., M. D., Asylum for the Insane, Kingston, Ont.

Clarke, F. H., M. D., Eastern Lunatic Asylum, Lexington, Ky.

Cook, G. F., M. D., Oxford Retreat, Oxford, Ohio.

Cowles, Edward, M. D., McLean Asylum for the Insane, Somerville, Mass.

Dewey, Richard S., M. D., Eastern Hospital for the Insane, Kankakee, Ill.

Dolan, A. Stanley, M. D., Assistant Physician Asylum for Insane Criminals, Ionia, Mich.

Draper, J., M. D., Asylum for the Insane, Brattleboro, Vt.

Eastman, B. D., M. D., Lunatic Asylum, Topeka, Kansas.

Everts, O., M. D., Cincinnati Sanitarium, College Hill, Ohio.

Fletcher, W. B., M. D., Hospital for the Insane, Indianapolis, Ind.

Frost, L. A., M. D., Hospital for the Insane, Jacksonville, Ill.

Gerhard, J. Z., M. D., Pennsylvania State Lunatic Hospital, Harrisburg, Pa.

Gilman, H. A., M. D., Hospital for the Insane, Mount Pleasant, Iowa.

Goldsmith, William B., M. D., Butler Hospital, Providence, R. I.

Gorton, W. A., M. D., Hospital for the Insane, Danvers, Mass.

Grissom, Eugene, M. D., Insane Asylum, Raleigh, N. C.

Hill, Gershom H., M. D., Hospital for the Insane, Independence, Iowa.

Hinkley, Livingston S., Essex County Asylum for Insane, Newark, N. J.

Hurd, Henry M., M. D., Eastern Michigan Asylum, Pontiac, Mich.

Hutchinson, H. A., M. D., Western Pennsylvania Hospital for the Insane, Dixmont, Pa.

Johnson, J. G., M. D., St. Joseph's Retreat, Dearborn, Mich.

Kilbourne, E. A., M. D., Hospital for the Insane, Elgin, Ill.

Knapp, William, M. D., Hospital for the Insane, Lincoln, Neb.

Long, O. R., M. D., Michigan Asylum for Insane Criminals, Ionia, Mich.

Mays, W. H., M. D., Asylum for Insane, Stockton, Cal.

Munson, J. D., M. D., Northern Michigan Asylum for the Insane, Traverse City, Mich.

Nichols, C. H., M. D., Bloomingdale Asylum, New York City.

Palmer, G. C., M. D., Asylum for the Insane, Kalamazoo, Mich.

Patterson, R. J., M. D., Bellevue Place, Batavia, Ill.

Pratt, Foster, M. D., Kalamazoo, Mich.

Pusey, H. K., M. D., Central Kentucky Lunatic Asylum, Anchorage, Ky.

Roberts, J. D., M. D., Insane Asylum, Goldsboro, N. C.

Smith, R. E., M. D., Lunatic Asylum No. 2, St. Joseph, Mo.

Savage, Thomas F., Assistant Superintendent Michigan Asylum for the Insane, Kalamazoo, Mich.

Stearns, H. P., M. D., Retreat for the Insane, Hartford, Conn.

Steeves, John T., M. D., Provincial Lunatic Asylum, St. Johns, N. B.

Tobey, H. A., M. D., Asylum for the Insane, Toledo, Ohio.

Williams, H. B., M. D., State Lunatic Asylum, Little Rock, Ark.

Wise, P. M., M. D., Willard Asylum for the Insane, Willard, N. Y.

Worcester, W. L., M. D., Assistant Physician Asylum for the Insane, Kalamazoo, Mich.

Mayor Chamberlain of Detroit was introduced and delivered an address of welcome to the members of the Association.

The President, Dr. Buttolph, extended acknowledgments on behalf of the Association.

On motion of Dr. Chapin, the mayor of the city, the officers of all medical institutions, members of the medical profession and representatives of the press, were invited to be present during the sessions of the Association.

Dr. PRATT. Mr. President and gentlemen of the Association of Medical Superintendents of American Institutions for the Insane: On behalf of the medical superintendents and managing boards of the hospitals for the insane in Michigan I have the honor to bid you a cordial welcome to the chief city of our State. You are welcome to our hospitalities because you represent an important feature of the humane work of the several States of our Union and of the provinces of our neighboring dominion. You are welcome because your official positions at home are evidences of your scientific attainments and personal worth, of which after acquaintance, we have no need of proof. We welcome you for your work's sake—because of what you have already accomplished for suffering humanity. We welcome you to Detroit, to the forty-first annual conference of this Association, established by yourselves and your predecessors, because its very aims and purposes show you to be striving, by increase of knowledge, to make yourselves and the institutions over which you preside a yet greater blessing to the world. Gentlemen, individually and collectively, you are welcome to Detroit and to Michigan.

You have already observed that Detroit is no mean city. Though not our political capital, she is our true metropolis or mother city as well as our chief city in population and commerce. Her magnificent site by the side of her majestic river—the outlet of the three northernmost of our great lakes—was discovered and announced to the world in 1610, three years after the first settlement of Jamestown in Virginia and ten years before the landing of the Pilgrims. For one hundred and fifty years French missionaries and fur traders, together with the native Indian, used and occupied this river and this soil—a period full of

thrilling and romantic interest well worthy of historical study. Canada and Michigan having been surrendered in 1760 to England, after our revolution, in 1783, Michigan became, by treaty, the property of the United States and a part of the great northwest territory, and ninety years next month, very near where we are now met, the flag of the United States, for the first time, was raised over her soil, and fifty years ago last January she became the twenty-sixth State, the last of the second group of thirteen, of the American Union.

In 1830 Michigan Territory had a population of 31,639. In 1880 she stood ninth by her population among her sister States and showed in 1884 a population of 1,853,658. By the tenth census—though ninth in numbers, she ranks first, of all the States, in her annual product of lumber, salt, copper and iron; third in wool; fourth in wheat, buckwheat and potatoes, hops and sheep; seventh in the number of her dwellings, the value of her farms, her dairy products, the number of her manufacturing establishments and the rate of her mortality. In this last respect she was surpassed only by Minnesota, Oregon, Nevada, Iowa and West Virginia, and she has held this rank in this respect for over forty years. By our latest State census in 1884 our population was 1,853,658, of whom, in round numbers, 1,357,000 were native born, and 486,000 were foreign born, the foreign element being about one-fourth of the whole. The same census disclosed some facts of significant importance to you and I will ask your attention to the figures.

The parent-nativity of our entire population was carefully tabulated and with these results. Nine hundred thousand had foreign fathers, 859,000 had foreign mothers, and 975,144, or more than one-half of our entire population came of parents one or both of whom were foreign born. The total number reported insane was 2,644, a total manifestly too small. Of these 1,504 were native born and 1,037 foreign born. Of the insane 374 were traced to native born parents and 389 foreign born parents, but the parent-nativity of 1834 insane was reported as unknown. One familiar with the history and physiognomy and speech of patients in our northern asylums will not hesitate to decide to which class, native or foreign, the great majority of this number of 1,834 of unknown parentage must trace their origin. This much is clear. One-fourth of our population furnish two-fifths of our insane, and it is more than probable that more than one-third of the insane chargeable to those of native birth had foreign parents. This is no accidental

result in a single class of defective population, for nearly the same results are found among the deaf and dumb, the idiotic and epileptic. Nor are such results confined to Michigan: they have been recently found to exist in New York and Massachusetts, and it is now evident that they will be found in other States, where the foreign population is large, when the subject is thoroughly investigated.

In 1850 the foreign population of the United States furnished scarcely more defective people than our native born; but in 1880, among the foreign born, who were one-eighth of our entire population, were found one-third of our paupers, one-third of the criminals, and one-third of our insane. The cost, great as it is, to States and counties, of caring for these classes of human offal, dumped upon us by foreign agency, and permitted by our own folly, is a matter of small importance compared with the certain effects on the mental, moral and physical future of our people.

But turning now from the causes of increased and increasing insanity in Michigan, permit me to speak of some features of her policy in mitigating the evil. She has now about three thousand insane. Two thousand are cared for in our State institutions, five hundred in county hospitals and private asylums, and the remaining five hundred are scattered, some at home, but more, we fear, in jails and poor-houses. Early in her history as a State she began to feel the stirrings of humanity in behalf of her helpless and unfortunate. The Michigan Asylum for the Insane, among other institutions, was authorized by legislative act in 1848, and located at Kalamazoo, and began operations in 1859. The Eastern Asylum, at Pontiac, was opened in 1878. The Northern Asylum, at Traverse City, two hundred and fifty miles north, opened its doors in 1885. The Asylum for Insane Criminals, located at Ionia, and opened in 1885, cares first, for those committing crime after the development of insanity and sent by courts to asylums; second, those who, convicted of crime and sent to prison, develop insanity while serving sentence. Third, patients committing homicide or developing homicidal impulses while under treatment or at large.

Some of our State methods which seem to be unique or peculiar may be worthy of mention. 1st. A pauper maintained at the State asylum, wholly at county cost for two years, becomes thereafter a State charge. This provision secures better treatment and care for the pauper class. 2d. The three managing boards of the three asylums proper are required to meet in joint session at one of the asylums at least twice in each year. This promotes

harmony and unity of institutional management; unity and concert of action in plans for future work, in new structural developments, or new general policy. One of the important functions of the three joint sessions is the establishment, each year, of the weekly cost per capita of maintenance for the succeeding year. This provision of law also promotes harmony amongst the institutions, and makes the cost to State and county patients all alike—equal to all, except the few private patients who pay for special advantages. 3d. What, for want of a better name, we call the *colony plan*, has been recently approved by our legislature. It does not consist in farming out patients under surveillance in private families as at Gheel, nor is it the construction of cottages in a cluster or a village in close connection with the main buildings as at Kankakee. It seems, as yet, to unite all the advantages and avoid the most of the disadvantages of these two systems. The plan contemplates homelike houses large enough to accommodate forty or fifty patients of similar conditions, located like farm-houses, on farm land, in groups, a mile or two away from the asylum proper, but connected by telephone with it and subject, in all respects, to its daily supervision and control. The class of patients selected are mostly of the chronic, but includes some of the convalescent, class, whose liability to serious disturbance is not great, whose physical health is generally good, and who are in a condition to desire labor and to be benefited by it. This plan has been begun and is now in progress of development at Kalamazoo. In a limited way, as regards patients employed in dairy work, it has proved, in its mental, moral and pecuniary results, a gratifying success. For a full elaboration of this scheme I must refer you to the able paper of Dr. Palmer promised for this meeting.

And now, Mr. President and gentlemen, if in Michigan we have had any success in caring for the insane which others desire, we will tell you all our secrets if we have any, and we will cheerfully impart all that we know. This, please to remember, is no part of our proffered hospitality, but simply the inadequate payment of a just debt; for we have learned in past times of you and cheerfully acknowledge our obligations to your valuable experience. But just now, and above all, it is our highest pleasure as it is our duty to bid you welcome to Detroit, welcome to Michigan, and welcome to all we can do to promote your comfort and pleasure. We wish you a pleasant, a profitable and a prosperous meeting.

Dr. Roberts moved to take a recess to enable members to register.

Dr. Chapin introduced Mr. D. A. Ogden, one of the trustees of the Willard Asylum, after which a recess was taken.

After the recess the President appointed the following committees:

Business Committee: Drs. H. M. Hurd, Pontiac, Mich.; Foster Pratt, Kalamazoo, Mich.; O. R. Long, Ionia, Mich.; Geo. C. Palmer, Kalamazoo, Mich.; John Curwen, Warren, Pa.

Nominating Committee: Drs. W. B. Goldsmith, Providence, R. I.; J. T. Steeves, New Brunswick; Richard S. Dewey, Kankakee, Ill.

Time and Place of Next Meeting: Drs. Charles H. Nichols, Bloomingdale, N. Y.; H. P. Stearns, Hartford, Conn.; G. H. Hill, Independence, Iowa.

To Audit Accounts of the Treasurer: Drs. J. Z. Gerhard, Harrisburg, Pa.; L. S. Hinkley, New Jersey; J. P. Brown, Taunton, Mass.

On Resolutions: Drs. P. M. Wise, Willard, N. Y.; E. B. Nims, Northampton, Mass.; M. Campbell, Knoxville, Tenn.

The Committee on Nominations reported as follows:

For President—Eugene Grissom, of North Carolina; for Vice-President—John B. Chapin, of Pennsylvania; for Secretary and Treasurer—John Curwen, of Warren, Pa.

Dr. Hurd presented a report as chairman of the Committee of Arrangements.

The Association then adjourned to 2.30 P. M.

The Association was called to order at 2.50 P. M. by the President, Dr. Buttolph, who read an address entitled "Insanity or Mental Derangement, with Remarks on its Nature, Causes, Classification, Pathology and Symptomatic Forms."

On motion of Dr. Callender the thanks of the Association were voted to Dr. Buttolph for his able and interesting paper.

Dr. Buttolph then presented the newly elected President to the Association, who spoke as follows:

Gentlemen of the Association: The language that conveys the ordinary emotions of life has no music in its tones or eloquence in its speech adequate to express our gratification at the approval of those whom we honor and esteem. When I recall the grand international character of this body, the oldest medical organization in this country, whose limits are co-extensive with North America,

and whose fostering care is exhibited in behalf of the insane among seventy millions of human beings; when I see before me the men whose names are synonyms of humanity and benevolence, from the rugged shores of the Atlantic coast to the star spangled prairies of the great west; from the enchanted land where the palmetto watches its tender grace reflected from the Mexican gulf, and the magnolia gives its greeting to the passer-by, to the great lakes of the north—those mighty pools of pure water from whose crystal depths are reflected back our national greatness; when I remember that the venerable forms of Woodward and Bell and Ray and Gray and Kirkbride have occupied this seat of honor, and recall their illustrious contemporaries and successors who alike with them have won the greenest laurels, I feel indeed that I stand upon ground consecrated by the purest devotion and the loftiest sacrifice for our fellow-men. It is high noon in the life of any man who in the providence of God, is named as a representative of an assembly of such men—the leading spirits of the grand work of reform in the great western world. Your kindness and confidence lie deep in my bosom and I should be gratified if I should be able to render you a service commensurate with the compliment which the position bestows.

Dr. Daniel Clark, of Toronto, read a paper entitled “A Psycho-Medical History of Riel.”

Dr. NICHOLS. I wish to express my obligation to Dr. Clark for his able paper. Having been an expert witness in the Riel trial, he appears to have studied the defendant's mental history with conscientious thoroughness, and I can not but hope that his masterly exposition of his mental condition at the time of the rebellion which he headed, will have its effect in bringing about that good time for which we all sigh, when such cruel travesties of justice as appears to have taken place in this case, will cease to be enacted, even in the remote provinces of an enlightened government.

Dr. Richard S. Dewey, of Kankakee, Ill., next read a paper: “Conditions of Early Life Favoring the Development of Insanity.”

Dr. HILL. I was very much interested in the paper, and wish to thank the Doctor for producing it. I think that the first thing which all of us have to do in treating disease is to try to ascertain the cause of that disease and determine whether it may be removed or not. It is also our duty as philanthropists to determine as far as possible to what extent the insanity may be prevented, and therefore we should reach out in all directions and gather as

much information as possible, and by continued efforts of this kind we shall in course of time reach some very valuable conclusions.

On motion of Dr. Hurd the Association adjourned to eight p. m.

The Association was called to order at 8 p. m. by the President, Dr. Grissom.

The following papers were read during the session :

The Laws of Habit in Mental Disorders. By Edward Cowles, M. D., McLean Asylum for the Insane, Somerville, Mass.

The Classification of Insanity. By H. P. Stearns, M. D., Retreat for the Insane, Hartford, Conn.

Etiology in the Classification of Insanity. By J. Draper, M. D., Asylum for the Insane, Brattleboro, Vt.

The Association adjourned till 9.30 a. m. Wednesday.

The Association was called to order at 9.30 a. m. Wednesday, June 15th, by the President.

The first paper announced was "Trephining in Insanity Caused by Injury to the Skull," by Dr. W. B. Fletcher, of Indianapolis, Ind. In the absence of Dr. Fletcher, the President announced as the order of business discussion on papers read the previous day.

Dr. EVERTS. I listened to the papers read yesterday with a great deal of interest. Many of them were of unusual value. I thought Dr. Dewey's paper was the beginning of good work in the right direction. He discussed the paper himself ably and concisely: it required no further discussion. The papers on classification were also timely, and quite comprehensive. I think that in the matter of classification so many different views have been expressed, in books, journals, and otherwise, that the subject has been left in rather a confused condition. But such is the condition through which all such subjects have to be conducted before we arrive at a correct position, and can make a true statement in accordance with knowledge. The trouble with us respecting classification is, we don't know enough; and it has seemed to me that the old classification of mania, melancholia and dementia, as simply indicating prominent characteristics of conditions, is about the best that we have been able to make so far; and I don't see that we can do any better until we know more, by efforts in the direction of an etiological, or any other, classification. We have not been able as yet to localize insanities—to associate particular thoughts or ideas with particular pathological conditions of brain or other mechanisms; and therefore it is useless

to talk about scientific pathological classification. Insanity is a general disease, and while a man is living and insane we can not look into his skull, nor see his brain. We can not feel as he feels, and we have no manner of knowing what his feelings may be, except by the symptoms. And in consideration of the fact that insanity seldom is, the effect of a single cause, an etiological classification is perhaps more indefinite than any other at the present time. The great trouble with discussing matters that we don't know anything about is that such discussions are endless. We go round and round like the old metaphysicians, only to come back to the same point. I believe that Carlyle was about right when he said that "It is an indubitable malefaction for any man to set his tongue wagging when he has nothing to say."

Dr. Gerhard, chairman of the Committee to Audit the Accounts of the Treasurer, reported that they had examined the accounts and found them correct. He reported that the Association was indebted to the Treasurer in the sum of \$96.27. The Committee recommended that an assessment of five dollars be levied upon each member of the Association in order to pay the Treasurer the amount due him, and leave a sufficient amount of money in his hands to pay the expenses of the present meeting. Adopted.

On motion of Dr. Hurd, Dr. C. T. Wilbur, of Kalamazoo, Mich., was invited to take a seat with the Association.

Dr. Fletcher then read his paper on "Trephining in Insanity caused by Injury to the Skull."

Dr. Foster Pratt introduced Dr. T. R. Buckham, of Flint, Mich., who, on motion, was invited to participate in the discussions of the Association.

Dr. FROST. Mr. President: The paper of Dr. Fletcher has been highly interesting to me, and his success seems a little remarkable. I have here a specimen that will illustrate one point, that is, that the depression upon the outside of the skull may not be the point of exostosis upon the inner table. The man from whom this specimen was taken received the injury by jumping from a train while it was in motion, striking his head against a railroad tie and producing fracture of the skull. When he recovered from the injury a depression was noticed about two inches in front of the coronal suture, and one inch to the right of the mesial line. Now on the inner table, running forward and slightly inward is a line of thickening which becomes quite an exostosis at the lower end. This exostosis is seven-eighths of an inch from the depression upon the outer table. It would be natural to introduce the tre-

phine around the depression found upon the exterior, and the button of bone removed would not take in the exostosis upon the inner table. If, however, an exploration of the inner table be made, should no exostosis be removed with the first button the next button might be removed more intelligently.

I wish to add that of three operations which I have seen, not one of them has been successful, and I would suggest that the cause of failure may have been on account of the depressed bone not having been reached, which might possibly have been done had the inner table of the skull been explored.

Dr. WORCESTER. I would like to state as having some bearing upon the matter; that there is one patient in the Michigan Asylum who has been twice trephined on account of depression followed by epilepsy without any apparent benefit. The operations were performed before his admission to the asylum. I would like to inquire of Dr. Frost if his patient had epilepsy.

Dr. FROST. It was a case of melancholia. He had partially recovered from the melancholia and his friends had thought they might possibly get along with him at home, but after reaching home he got worse. After the injury he complained of two things. He had great pain over his right eye at the location of the injury, and he also had double vision.

Dr. EVERTS. There is no question about the fact that traumatic injuries of the head are frequent causes of insanity. Dr. Fletcher's cases certainly justify the operation. When we consider the character of the persons that are so affected, and when we consider the general progress that has been made in surgery, lessening to a great degree the danger to life from operations of this kind, I think operations of this kind will be resorted to in future more frequently than they were in the past. The difficulty of exactly locating the osseous injury should not prevent the operation. The life of such patients is not worth saving. It is better that they should die so far as we are concerned. There should be no hesitation in the experiment. If successful we have gained so much; if unsuccessful we have lost nothing.

Dr. GOLDSMITH. Mr. President: I have no experience to offer upon this point, but it seems to me that the cases which Dr. Fletcher cites are instructive and that his experience is a very exceptional and remarkable one. I have tried to use care—as I presume every one here has—in examining the heads of such cases, but I never chanced to have a case of epilepsy in which there was evidence of fracture of the skull, or in which this operation would seem to be

indicated. I have been accustomed, too, for years, to see a great many autopsies of insane patients, and I have not seen any skull of an epileptic which showed evidence of previous fracture. One of the most important points of Dr. Fletcher's paper seems to me to be the importance of appreciating at the time of the head injury the possible effect of this injury on the brain. I do not think that a surgeon should feel the slightest satisfaction in saving the life of a patient who has a fractured skull unless he has removed all pressure from the brain. The risk of subsequent disease of the brain is so great that no amount of risk to life from the operation should deter the surgeon from making sure that all depressed bone is removed.

Dr. DRAPER. I wish, Mr. President, that Dr. Everts would modify one of his statements somewhat. I do not think he meant to put himself on record that we were justified in acting upon the principle in any case that an insane person's life is not worth saving.

Dr. EVERTS. I am very happy to make any concession that would please the gentleman, but certainly I mean what I said—if the patients were hopelessly insane.

Dr. DRAPER—I was afraid, Dr. Everts, that the reporters would get you wrong. That satisfies me.

Dr. BUCKHAM. There is one case which I might describe—I hardly know whether it comes under this head or not. It was that of a boy about twelve years old who was struck with a crow-bar on the head just above the ear, and some three or four months afterwards he was brought to me. He had suffered from epileptic seizures, and his parents said his disposition had changed; from being very amiable he was now exceedingly morose, and they were afraid he was becoming insane. The epileptic seizures were frequent and severe. I found on examination that there was considerable depression at this point and pressure there gave him a great deal of pain. On making an incision in the scalp, I found the bone depressed; I trephined, and raised the depressed bone, and he never had any convulsions, nor any of the morbid, disagreeable, cross feelings afterwards. I think it very probable that had the depressed bone remained as it was he would have become permanently insane.

Dr. ROBERTS. Mr. President: I would like to ask for information. Is it desirable to trephine in cases of long standing? Now I can see how recent cases would be benefited by the operation. I have under my care now some four or five cases of insanity

from traumatic causes—injuries directly to the skull, but they are of long standing—from five to twenty years. I would ask would it be desirable to make the experiment, as Dr. Everts says, on those cases where we have no hope of success from other treatment?

Dr. FLETCHER. Why all of my cases were old ones. In two of them the insanity was of twenty years' standing and in these we had the best results. Of course the operation has to be experimental for you could not tell but at the base of the brain or elsewhere an injury existed quite as serious as that marked upon the skull. It would be impossible to know that, but I think that I should take the risk in all cases where there was constant pain and irritation located in any portion of the skull.

Dr. CAMPBELL. Mr. President: I would like to report a case in the hospital over which I preside. Joseph Way, admitted to the hospital March 4, 1887. Was completely demented. Had been struck on the head six years before and sustained a fracture of skull on the crown. On October 6, 1886, he was attacked with insanity which lasted for two weeks. He seemed to recover, but had other attacks. He was trephined in February, 1887. After he had been in hospital two weeks he recovered his reason and was discharged well on May 1st, 1887. Since then he has worked on a farm and had no relapse.

The patient, when admitted was suffering with paralysis agitans of right hand and arm, from which he completely recovered.

Dr. FLETCHER. I would like to ask Dr. Campbell if that case has been reported?

Dr. CAMPBELL. No, sir. In another case that I might report no results came from the operation.

Dr. EVERTS. I would ask Dr. Fletcher's attention to the case of Dr. Athon, and ask him if he has heard of that.

Dr. FLETCHER. I called upon his nephew who had charge of his library and effects. I had heard a rumor that he had operated on two cases.

Dr. EVERTS. He operated on one case at the Indiana Hospital after I had had charge there some time. The Doctor operated at his office in the city, and sent the man to the hospital. The man had been an insane patient in Dr. Athon's time, but had partially recovered. He came to the Doctor for relief, and was sent to the hospital immediately after the operation. He died of inflammatory action.

Dr. C. K. Clarke, of Kingston, Ontario, read a paper on "Goitre and Insanity."

Dr. GOLDSMITH. I think this paper ought not to pass without discussion as it presents most interesting information with regard to goitre in this country. I would like to ask Dr. Clarke if he has noticed any hereditary influence with regard to goitre in his neighborhood. Does it run in families?

Dr. CLARKE. In one case we have two brothers in the asylum and each of them has a large goitre. That is the only thing I have noticed as bearing upon this point.

Dr. GOLDSMITH. Is the locality about Kingston one in which you have small changes in population. Do they intermarry as in Swiss families?

Dr. CLARKE. In the Eastern district there is a great deal of that sort of thing. There is a great deal of intermarrying there.

Dr. GOLDSMITH. You spoke also of the fact that goitre rarely was present among the recent admissions. Do I understand you that it usually developed in the asylum or simply that it was rarely found in patients who were insane but a short time?

Dr. CLARKE. Nearly every instance occurred during asylum residence.

Dr. GOLDSMITH. That seems to me, Mr. President, to be rather a striking fact and different from the history of goitre in other countries where it pervades families and is often developed before adult life. Most of the Doctor's patients, I take it, are adults before they come to him. You do not receive many children?

Dr. CLARKE. No, sir.

Dr. GOLDSMITH. I do not know that there is any definite knowledge as to the conditions which favor goitre. The locality about Kingston does not seem to be mountainous as is the case in most of the other goitrous regions of the world.

There is one interesting fact which the Doctor did not mention, probably because it had no direct relation to the subject of his paper, but which seems to me very interesting in this connection. I refer to the mental failure which surgeons now know is likely to follow extirpation of the thyroid gland. In these cases the Doctor speaks of the insane having been peculiarly liable to goitre. That may be the case. I should think it more probable that the same conditions that made them predisposed to insanity predisposed them to goitre. The fact is probably familiar to the members of the Association that a few years ago surgeons quite frequently removed the thyroid gland in cases of disease of its structure, but

I believe it is now rarely done because they recognize the fact that dementia is likely to follow. If the insanity in the cases mentioned preceded the goitrous disease in point of time, it might be thought that the disease abolished the function of that gland whatever it is, and that the mental degeneration followed in the same way that it does upon the extirpation of the gland by surgeons; but that does not seem to have been the case and I only refer to it as an exceedingly interesting fact, which points to the probability of a peculiar relationship between the functions of the thyroid and the brain.

Dr. LONG. I was not paying strict attention at one point of the Doctor's paper, but if I understood him correctly his statement was that he thought possibly that malarial influence had something to do with causing goitre. I wish to say that perhaps in no State in the Union are malarial diseases more prevalent than in Michigan, and in my limited experience goitre has been a rare thing among my patients. Perhaps it has been more frequently seen by the older superintendents of the State, but I speak of my own experience.

Dr. MAYS. I am glad that Dr. Goldsmith called attention to the probable cause of goitre as due to the intermarriage of relatives. It is found that in the Swiss Alps, in certain valleys that are very much isolated, and where intermarriage has been carried on for centuries that it is very prevalent, while in other valleys it is found to be absent. I think that injures very much the limestone theory as to the origin of goitre. We have goitre develop in the mountainous region about Ronchester. There, I think if I have a chance to investigate the matter it will be found that the intermarriage of relatives—consanguinity, may be found as a cause.

Dr. BLUMER. I would like to ask whether Dr. Clarke can inform us if in the neighborhood of Kingston there are cases of cretinism, and whether in his asylum he has noticed cases of myxœdema in connection with the extirpation of the thyroid gland. In Swiss asylums, I believe, a marked inter-relationship between goitre and myxœdema has been observed. It has been noticed that myxœdema has followed such extirpation, pointing to disease of the peripheral nervous system.

Dr. CLARKE. I have never heard of such cases in Kingston.

Dr. PRATT. I would like to ask the Doctor if he has noticed any predominance in any particular race—French, English or Scotch.

Dr. CLARKE. No, sir. I have never made any statistics in reference to that point.

Dr. FLETCHER. After seeing the announcements of the paper

to be read at this morning's meeting I carefully examined the patients in our hospital, and out of sixteen hundred patients we have nine well-marked cases of goitre and they are all among the foreign population. There are four Germans—two sisters by the way—and the others I believe are Irish and French, but four of them are Germans. We have a very malarious district. Indiana is supposed to give rise to most all the fever of the country, but we do not have goitre among our native inhabitants. I believe that all these cases of goitre are associated with heart disease; really an exophthalmic goitre.

Dr. W. L. Worcester, of Kalamazoo, Mich., then read a paper on "Illustrations of the Localization of Cerebral Functions." [See page 66.]

Dr. Barksdale exhibited some specimens of bits of glass, buttons, bricks and stones taken from the rectum of a patient in the Richmond Asylum.

Dr. Eugene Grissom submitted a short paper giving the history of a murder committed in North Carolina by a deaf mute, supposed to be insane, named Bingham.

After reading his paper Dr. Grissom said: I corresponded with many of the superintendents in reference to this case, asking in the form of a circular letter whether or not they had observed differences in the brain and other organs of deaf mutes and those of any other persons. I wished very much to understand upon what basis this alliance between deaf mutism and insanity exists. Very much to my surprise letters from anatomists and physiologists all over the United States revealed the fact that very little investigation in this direction had been made and that there was no very great amount of literature upon the subject. It seems to me that the deprivation of any portion of the senses is necessarily connected with and has a tendency to embarrass the functions of the brain. While the individual case recited is of itself a matter of little importance, the investigation of this subject is one it seems to me to which we might properly devote some time.

Dr. GILMAN. We have admitted half a dozen cases of deaf mutes to our hospital. Five of these cases have seemed to be chronic in character. All of them have been mild and have given very little trouble in caring for them while in the hospital. One of the cases made a good recovery apparently and returned home and has remained convalescent since. There did not seem to be any peculiar irritability in any of these cases that was marked, and

I see nothing that would lead us to believe that there were characteristics of disease—pathological characteristics, different from other cases of insanity that were admitted. I have been very much interested in Dr. Grissom's paper and from the fact that this man Bingham was at one time at the institution at Council Bluffs, in our State, and I have also been interested in that line of thought to which Dr. Grissom has directed us in connection with insane deaf mutes.

Dr. TOBEY. I don't know that I can add anything to the Doctor's paper except to report a case that seemed to me very extraordinary, which came under my notice at the Columbus Asylum and which may have some bearing upon the question raised by Dr. Grissom. We had in that institution a man who I think was twenty-six years old when admitted. From the time he was six months old he had been blind and when about two years of age he received an injury from pulling a pot of hot water over himself—making him a cripple. At the age of thirteen he was taken to the Columbus Asylum for the Blind and remained a pupil until he was seventeen years of age. In the vacation of his seventeenth year he started one day to go up stairs with his teacher and suddenly sank down and was carried to his room. He could neither speak, hear nor see but was conscious. He remained in that condition for about one month; when suddenly his sight returned to him like a flash. He was very much frightened. He was then transferred to the Deaf and Dumb Asylum and remained there until he was twenty-two years old. He was a man of some education and intelligence. He went home from that institution and remained at home about a year when his hearing came to him as suddenly as had his sight. As he had lost all knowledge of language it was necessary for him to begin at the first steps. About a year and a half afterwards he became insane and was sent to the Columbus Asylum and had been there two years when I left the institution. I heard his story from himself as well as from the superintendents of the two asylums where he was a pupil. He recovered almost entirely from his insanity after about six months' treatment, except that he was inclined to be melancholy and he then began to have seizures of epilepsy about six weeks or two months apart.

I wished merely to report the case as a somewhat unusual one and as perhaps having some bearing upon the line of thought introduced by Dr. Grissom.

Dr. GRISSOM. I should be very glad, Mr. President, to have the experience of any gentleman present who has had an extensive

observation in microscopical investigations—Dr. Blumer for instance, who represents an institution which has pursued such investigations, or the representative from the Oshkosh asylum perhaps, and many other gentlemen; whether or not they have had an opportunity of making post-mortem investigations of the brain of the insane deaf mute with a view of finding out whether there is any physical basis upon which to build a theory; whether the brain of any deaf mute has been investigated under the microscope. Whether there is any physical differentiation of the brain of the deaf mute as compared with the brain of a speaking man of either class whether sane or insane. I would like to inquire further of any gentleman present whose investigations have been in the general anatomical line as to what are the anatomical differentiations of the deaf mute—either of the speaking organs or of the hearing organs. We in a rural country have but few opportunities of making investigations of that sort even if we had the ability and we are therefore dependent upon those who have had wider and larger opportunities. Perhaps Dr. Nichols may have had some experience.

Dr. NICHOLS. I have made no particular investigations into the difference, if there be any, between the anatomical structure of the brains of deaf mutes, and the brains of sane and hearing persons. My own strong impression is that there is no difference in most cases—that the deafness comes in the large proportion of cases from the destruction of the mechanical apparatus of hearing, without necessarily affecting the brain. Most deaf mutes I have met with are rather clever intellectually. They are apt to be a little peculiar. Because of the absence of the sense of hearing and their inability to understand what is said by persons about them there is apt to grow up in their minds a certain suspicion in respect to the intentions of such persons; and the indulgence of suspicion in respect to individuals seems to beget a suspicious and rather irritable habit of mind. Of course, if deaf mutism is congenital it may be and is perhaps rather likely to be attended with more or less cerebral defect. I think all congenital absence or defect of the senses is. My own experience is the principal ground of my impression in regard to the want of connection between cerebral defect and deaf mutism. In the care of something more than nine thousand cases of insanity I recall but (2) two deaf mutes among them, and neither of these had any constitutional cerebral defect nor any intellectual defect, except that which had come naturally from the absence of one of the senses.

Dr. ROBERTS. In Dr. Grissom's preliminary report he speaks of Dr. Beverly Robinson of New York treating this case for catarrh, and Dr. Robinson's opinion as to the catarrh producing the mental defect in Mr. Bingham. We must recollect that that part of the history was obtained from the mother, the family physician or the patient. I have been investigating this matter in connection with Dr. Grissom to some extent and I had a correspondence with Dr. Robinson directly. I did not mention Mr. Bingham's name at all, but put the question to him as to the probability of catarrh producing a mental defect and the character of the defect, and in a lengthy reply Dr. Robinson said that he had known of one case where the catarrh did produce insanity and it was of such a description that I thought he alluded probably to this case. In my investigation of the matter I opened correspondence with several on the question of the medical jurisprudence of this case as Dr. Grissom did also and I was surprised to find that there were no reports of cases bearing directly upon this point. There are reports of cases of the uneducated deaf mute and of their irresponsibility. Formerly the uneducated mute was considered as irresponsible but since the establishment of schools for their education there has been a change of opinion in regard to this matter, and I have not been able to find any case bearing upon this question, and at my suggestion or rather in correspondence with Mr. Clark Bell, who is President of the New York Medico-Legal Society, that society has undertaken an investigation of the matter and has had a committee appointed on the subject, and we may look for their report very soon, I think. In fact I believe I was appointed on the committee though I have done no work.

Dr. FLETCHER. I have been very much interested in this case. I believe we have three deaf mutes in our institution and I have at my room a specimen of the entire arterial circulation of a person who was a deaf and dumb epileptic, and although I preserved that brain I have never carefully traced out that point; neither did I examine the micro-sections relating to it; but I shall be very happy to show the Doctor the specimen, to see if the vascular supply was not interrupted to that part of the brain in which sound is perceived. A remarkable fact in this case is this; in comparing it with ordinary brains it was found to be much larger than usual, weighing some fifty-seven and one-half ounces free from the membranes, but the arterial supply is very defective. Take the Sylvian artery for instance which in some cases will give off some sixty branches, I think there were only five or six branches;

although there was a large supply of white and grey matter there was very little distribution of blood to that brain. I have that specimen with others, and we may trace right from that to see if the arterial supply to that part was not affected.

Dr. HURD. I remember during my asylum experience two deaf mutes who were insane, both of whom were educated before coming to the asylum. One recovered under treatment but relapsed, was again sent to the asylum, and after about a year made a second recovery, and for the last six or eight years has been able to live at home. Another, a female, did not recover, but went into a state of confirmed dementia. She was thoroughly educated and her mental trouble began while she was at an institution for the deaf and dumb. All of us have, I think, in our institutions, deaf mutes who are congenital idiots, or at least who suffer from congenital mental defects, who are incapable of education and who are insane and dangerous, and yet who show none of the mental manifestations of the educated deaf mutes who become insane. As I understand Dr. Grissom's inquiry it is in reference to educated deaf mutes who have had considerable mental training, and who do not suffer from congenital idiocy. In the latter cases I think if the brain were carefully investigated it would be found that the difficulty is entirely with the hearing apparatus, or in other words, with the means of conduction of sounds and not with the brain itself. From the fact that the mental symptoms of these patients are much alike some have been disposed to argue that a special region of the brain in the insanity of deaf mutes was affected. My own explanation of this similarity of mental manifestations in deaf mutes is found in their peculiarities as a class. The deaf mute whether educated or uneducated grows up a very peculiar man. He does not possess the same means of correcting false judgments that all have who can hear. He is retiring, self-concentrated, and unable to converse freely with his fellow men. His mental development is at best quite defective. As a result of his social isolation he becomes unsocial, suspicious and inclined to live and move in certain grooves of thought which are suggested by his defect and finally become habitual. I do not know that he is any more liable to become insane than a blind person but when he becomes insane his insanity is very apt to follow his habitual mode of thought. He is violent in consequence of his suspicions, impulsive from his inability to understand his relations to his associates and inclined to complain that he is talked about. In many respects his attitude of mind resembles closely

that of a convict in a prison. Many of his delusions also are of the same general character and he like a convict is unable from force of circumstances to correct his false impressions. With it all however he is simply an insane deaf mute with the peculiarities of his class. From my point of view deaf mutes may become insane, just as blind persons may become insane; but that deaf mutism any more than blindness is in itself a cause of insanity I am inclined to doubt. I also believe that while deaf mutism may modify responsibility it does not abolish it.

At the conclusion of Dr. Hurd's remarks the Association adjourned to 3 P. M.

At 12 o'clock the members of the Association visited and inspected the extensive laboratory of Parke, Davis and Company.

The Association was called to order at 3 P. M. by the President, Dr. Grissom, who announced as the first order the reading of a paper by Dr. W. B. Goldsmith, of Providence, R. I., on "Communicated Insanity," giving the history of Freeman, the Pocasset letter carrier and that of his wife.

Dr. HURD. Two years ago in the biennial report of the Eastern Michigan Asylum I reported briefly cases of communicated insanity in a family living in Genesee County in Michigan. The facts of the case were briefly these. A Mrs. Sumner, a person of unstable mental organization, became insane. She had a previous attack at the age of nineteen and after marriage and the birth of a child in consequence of prolonged lactation and general hardships had a second attack of insanity. Her husband, a worthless fellow who neglected and abused her, was an epileptic. Her mother was a person of feeble intellect who had borne a large family and had suffered great misfortunes. Her husband, the father of Mrs. Sumner, was an inebriate. Several of her children had been insane and one or two of them were deficient in mind. After Mrs. Sumner became insane a married sister, a Mrs. Livingstone, came to live in the same family to help take care of her. This woman who was under-sized and deformed and constitutionally superstitious had considerable quickness of intellect. She explained to the satisfaction of the rest of the family that the insanity of Mrs. Sumner was due to witchcraft and the evil machinations of her husband, and assigned a variety of reasons in support of such belief. Among other things she alleged that a watch which the husband of the insane woman carried with him possessed magical power. On one occasion when he was sleeping

the watch was taken from under his pillow and put under the pillow of a sick child who seemed much benefited by its presence. Sumner soon woke up, had a mild epileptic seizure, became very anxious about the watch, clamored for its restoration and seemed to be very much distressed until it was restored. He became quiet as soon as it was returned to him, but the child grew worse and soon died. This was regarded by Mrs. Livingstone, as proof positive that the child had been bewitched by him. She also believed that the insanity of Mrs. Sumner was due to the evil influence of her husband, and so wrought upon the fears of the family that its members combined and threw him out of the house. This was the beginning of a very active campaign on the part of the family some twelve or fourteen persons in number, who became impressed with the idea that they had all been bewitched by Sumner. They immediately stopped up the windows and doors and to break the "spell" began to fire silver through the windows. They knew that spiritual agencies like mesmerism and witchcraft could not be dispelled by iron or lead bullets; these baser metals could not dispel the charm; it was necessary to shoot silver, consequently, as long as their money lasted there was an active fusilade. All the glass in the house was shot out and their money soon disappeared. The sufferings of the insane woman, however, continued. She suffered from a high degree of mental excitement which of course was not relieved by this novel method of treatment. They concluded from her symptoms that Sumner was still somewhere in the neighborhood exercising his baleful arts upon his wife. They accordingly put forth every effort to preserve the life of the unfortunate woman until he had exhausted his power of witchcraft. They rubbed her constantly, cut off the ends of her fingers and toes and gashed her in various places under the conviction that while the blood ran the patient's life was safe. At the end of a week or two—I think that this treatment lasted nearly two weeks—the neighbors became alarmed and a physician was summoned who came to the house. He was assaulted by Mrs. Livingstone with a knife and sustained a dangerous wound. The officers of the law finally broke in and arrested the whole family. Mrs. Sumner and Mrs. Livingstone were adjudged insane and brought to the Eastern Michigan Asylum. Their mother and several of her children and grandchildren were taken to the poor house, two or three of the adult members of the family were sent to jail and the nest was broken up. The other members of the family after they were separated from each other soon lost their

delusions, became ashamed of them and returned to their work. The two women who came to the asylum however, were under treatment for some time. The woman who had the systematized delusion about witchcraft retained her belief in witchcraft in a modified form up to the end of her treatment. At the end of a couple of weeks she acknowledged that she had suffered from delusions and became unwilling to talk about them and finally was much ashamed whenever they were referred to. She acknowledged that she had been mistaken as to the exact influence which Sumner had had upon his wife; but insisted that witchcraft had been used. She gradually improved and at the end of several weeks was taken away by her husband. The other woman had a long period of excitement but after a number of months was well enough to be discharged from the institution. The officers of Genesee County informed me that at one time as many as sixteen persons including children were affected by this delusion and were dangerous and outrageous in their conduct.

Dr. GILMAN. In reference to this case reported by Dr. Goldsmith I would ask if it were not possible that the influence of the husband upon the wife would induce her to accept the belief which she had in reference to the sacrifices which he was to make, or in reference to his religious belief in full, and that the loss of sleep, night after night, and week after week, the excessive religious enthusiasm perhaps which was manifested by this knot of men and women who believed as he did, might not cause the irritation which resulted in the insanity of the woman, the wife, rather than that it was communicated to her by her husband.

Dr. GOLDSMITH. I would say in regard to that that I had some compassion upon the audience and did not read everything that I had written upon the subject. I am not sure whether the woman was insane previous to the end of her first month in jail or not. She certainly was on very dangerous ground and I believe very much as the Doctor has suggested that she may have been only a fanatic after the death of her child when she was greatly tried by doubt and subsequently when she had a short period of mental confusion. But after the first month in jail I consider her unquestionably insane, but the fact is that the evidence of her insanity is simply that her mind was merely a reflex of her husband's for more than two years following, and she recovered as he recovered. If he had recovered a year sooner I think it probable that she would have done so. She entertained his beliefs whatever they were.

Dr. GILMAN. I had an instance of this kind although it did not end in the way this did. The man became insane with delusions and his wife entertained the same delusions while he was with her at their home, but his insanity was promptly recognized and he was removed to the hospital for treatment, and before many days had elapsed his wife was entirely well. There was no evidence of insanity afterwards although her delusions were similar to his while he remained with her. He was removed to the hospital and she immediately became sane and appeared sane from that time afterwards, and he after several months made a good recovery.

Dr. GOLDSMITH. I have no doubt that if this man had been removed to the hospital previous to the death of his child his wife would not have been insane. I feel confident of that.

Dr. GILMAN. In the case I have reported I formed the opinion that the temporary derangement was the result of the loss of sleep and of the anxiety in reference to her husband and in reference to his condition perhaps, and all of the surroundings which would induce insanity, and when the cause was removed, there appeared to be no pathological condition in the case of the woman.

Dr. STEARNS. Mr. President: It occurs to me that we may fairly question the appropriateness of the term "communicated insanity" as used in connection with the case presented by Dr. Goldsmith. It seems to me that upon almost any theory of insanity, or at least upon that theory with which we are all in accord, it would be very difficult to conceive in what manner one person could communicate insanity to another. In a word this theory implies that insanity arises from, and is dependent upon some physical derangement, or pathological condition of that portion of the brain which is immediately concerned in the thought process, and we could about as reasonably expect that a person could communicate lameness, or paralysis to another, as insanity.

I am inclined to think that the case admits of another explanation. It appears that these two persons lived together not only in the ordinary intimate relationship of husband and wife, but that the mind of each one was a sort of mental reflex of that of the other; that there was an unusual degree of unity and harmony in their general course of conduct and belief, and that this extended to the particular form of religious belief which prevailed in the community about them. This was one of fanaticism, and absurd in the extreme to everybody except those who were under the immediate influence of the leaders; it was attended with more or

less of excitement at all times, and sometimes with a great deal of it; the nervous system was kept upon a pretty constant strain with expectancy and anxiety. Now such an atmosphere of excitement, and such conditions of daily life are most unfavorable to mental balance and not unfrequently lead on to the development of insanity, and it is evident that in consequence of them the husband became insane. In the case of the wife there was the additional effect which resulted from the horrible tragedy, and the confinement of a month in the jail; also from the worry, loss of sleep, and foreboding, which came in consequence of it all. Such causes alone would be quite sufficient, especially while operating upon a sensitive nervous system already weakened by excitement and strain even in a strong person, to induce derangement of mind. It seems to me that these two cases were caused in some measure by like influences, and that the calling one of them a case of "communicated insanity" would be rather a fanciful use of language.

Dr. FLETCHER. This case recalls to my mind one that I remember reading about in the first numbers of the *AMERICAN JOURNAL OF INSANITY*. It was that of a Pinkham family living in Maine and I hope that some members from New England may be able to give the full details of it. I believe that in this instance the father labored under some religious delusions and persuaded the mother that it was right for them to give up all their property and sacrifice their children, and if I mistake not the children entered into the common belief and that the father and mother did absolutely kill five members of the family and then committed suicide. If I am mistaken in these details perhaps some of the members present who are familiar with the history of the matter will give us the particulars. Another case I remember in Indiana was that of three Germans, two brothers and a sister living on a farm isolated from the rest of the community, persons of very ordinary education, if educated at all. One of them, the older brother conceived that the devil had taken possession of the farm and that they could not raise good crops until they had succeeded in unearthing him; that he was to be found underneath a certain boulder within their barnyard. The older brother began and worked for days, rolling up great boulders and finally the second brother was possessed of the same belief and finally his sister also, and the three of them were engaged in this work for some six weeks, making an excavation which was about twenty feet upon the surface and running down to about fifteen feet in depth and you

would be astonished at the size of the boulders which with their united efforts they were able to roll out, always expecting to find that each boulder had the devil below it. In fact they worked so hard and became so emaciated that the neighbors finally had them all arrested and the three were sent to the hospital, two brothers at one time, the sister afterwards. All recovered from their delusion in the course of six months, the sister first, probably from the change of circumstances and the good diet. They picked up in flesh and before leaving the institution all of them acknowledged their delusion. Whether the enthusiasm of the brother caused the insanity in the others is a question, but they acted in the same manner precisely. They all believed in the existence of the devil under the boulder and all worked hard to get him out.

Dr. HINCKLEY. The discussion upon this paper of Dr. Goldsmith's brings to my mind the case of two brothers that excited interest some twenty years ago in New Jersey, one of them about twenty-five years old, the other two years older. The younger brother suddenly became demented and the older brother who had always shown the greatest amount of affection and sympathy for him nursed him for a period of six months. At the end of that time they removed the younger brother to an asylum. The older brother suddenly manifested the same symptoms as the younger brother. They were both in time sent to the Asylum at Trenton and remained there for a number of years and were returned to their homes and are now under my observation. The symptoms are very much alike in both cases. The history shows that there is no hereditary mental disease or neurotic taint but the cases are so much alike that they attract attention in the matter of symptoms. If one brother at a table stops eating the other brother will immediately stop also and we find it necessary to remove one case from the other to allow them to gain proper sustenance. That is all there is peculiar about the cases but it seemed to me to have some bearing upon the question of the communicability of the disease.

Dr. PRATT. It is well known, in general practice, that certain nervous troubles are reproduced in some children and some adults of impressible nervous temperament, by sympathy, and, in others, by imitation. During the course of my professional life I have known of several cases of permanent stammering—stammering that continued through life—beginning in imitation; if the original stammerer was a boy or girl of strong mental and physical characteristics the habit of stammering impressed itself more or

less on their playmates or those associated with them. It is well known to the general practitioner, also, that a person afflicted with chorea appearing upon the streets may develop, in certain nervous temperaments, especially in children, the same or similar manifestations. I had one case of such origin under treatment for nine months. Now these being well known facts, illustrative of nervous or muscular insanity, so to speak, they may help us to understand how we may have—call it whatever you please—communicated insanity, imitative insanity or sympathetic insanity. I can readily understand how in the intimate and sympathetic relations existing, for instance, between the husband and wife, the morbid feelings—even the delusions—of one can be imitated by or established in the other—call it imitation or communication as you please—the result is the same, and may be quite permanent. It is no uncommon thing to observe morbid religious excitement beginning in one party—the husband or the wife—communicating itself to the other. All of us who have had practice in localities, where some remarkable religious excitement has prevailed, have seen cases of this class; and although they may not often have developed into what may be properly called insanity, yet they have gone far enough to demonstrate the effect of sympathy or imitation or, if you please, of that magnetic power (often morbid) which the stronger has over the weaker person.

Dr. COWLES. Mr. President: I am very glad to hear further details of this case from Dr. Goldsmith. It is a case that has greatly interested his colleagues in Massachusetts. I am impressed by the question raised by Dr. Stearns. Looking at the case from a purely psychical point of view, there were two persons under similar conditions as to their lines of conviction and ideation; they had common beliefs; they were intelligent persons, the woman evidently so: may not the same influences have produced a like effect on both? And in this view perhaps it would be difficult to say which was the first to begin to be insane. As a matter of fact if I understand correctly in regard to that particular act the woman first suggested, the act of sacrificing the son in the manner of Abraham; that came from the woman herself and the idea once entertained was afterwards embraced by both as a delusion. I am not able to give any testimony as to the frequency of occurrence of such cases of communicated insanity except in a negative way, as I have never met with any. In several instances that I can recall I have taken pains to separate patients from association with each other—women particularly—where there was something of a

duplicative character in the acquired delusional idea or insane conduct that suggested the imitation of hysteria. The cases were hysterical in their nature and these imitations were comparatively transient. The particulars of this case and what has been said of it have suggested to me to remark upon a curious case which is, in some sort, an antithesis to it. One of the cases which I had the honor to report to the society two years ago was that of a young lady who for ten or fifteen years had been the subject of a fixed idea. She was for years dominated by the idea that all of her acts could in some way cause injury to a distant friend. In order to avoid the possible calamity to her friend she would imprecate upon herself, by the most awful forms of oaths and imprecations, a similar calamity, should harm come to her friend, thereby placing herself in a vicarious position and saving herself from inflicting the injury thought of. It came about after a long time that she began to feel a great degree of depression, and suffered the remorse so common to melancholiacs; believed that she had done wrong in the course she had pursued, and, feeling compelled to punish herself, adopted a system of denying herself every pleasant and agreeable thing, agreeable companions, etc.

Near her room was an old lady who had to be fed with the tube occasionally, or to be coaxed and persuaded, a half hour at a time by her nurse, to take food. The patient referred to felt that she ought to suffer as much as anybody else could suffer. She looked about for ways and means and manners and methods by which she could suffer; refused food with the idea that she ought to do it to compel herself to be fed, that she ought to be subjected to the indignity of being fed by force. It amounted really to this, without going into details to make it plain; she undertook to have a delusion which should prevent her from eating. She felt that she ought to suffer the worse of all possible punishments here and hereafter. Being a very intelligent woman she well understood the nature of a delusion by her observations during two or three years' residence in the asylum with other patients. She was familiar with the common delusion of having committed the unpardonable sin. After a time she said that she must have committed the unpardonable sin herself, but she asked, "What is it?" "If I have committed it," she said, "I ought to suffer; if I have not, I ought to suffer as much as if I had committed it; no punishment is too great for me." She tried to grasp the idea of committing the sin against the Holy Ghost, and to conceive of the punishment that would belong to the commission of that sin.

That went on for two or three weeks. She seemed to be acquiring a delusion, but the true psychical elements of it not being present, after a time it faded out. However, in the course of her illness other points of conduct had come up; she had reasoned in a theoretical way, and she did possess herself of ideas and make her conduct in regard to them habitual; but they could always be argued away as to any real belief about them. It was a very peculiar case and unlike anything I ever saw. This woman sincerely tried to adopt two of the most prominent delusions among the insane.

Dr. LONG. I do not wish to occupy the attention of the members longer, but I have in mind a case very similar to the one reported by Dr. Goldsmith. About five years ago I was called to see the wife of a laborer, people that I had some acquaintance with. They were of about the average intellect and acquirements of people in their position of life. The Salvation Army had invaded the town a few weeks before and they had been attending the meetings regularly. The husband called me to see his wife about four o'clock in the morning. I went and found her very much excited, nervous and uncontrollable; she asserted that she felt inspired to kill her children—they had three children. In fact she said it was imperatively necessary that they should be sacrificed. I prescribed for her and suggested that the husband call in a neighbor to look after her closely. I then told him her condition and that she must be watched very closely, and directed that she be not left alone at any time with her children; the husband told me that he felt confident that there was no necessity for the neighbors being called in; that she would do no harm to the children; he said that she had attended the meetings a little too closely and was somewhat nervous from it. He did not exhibit the least sign of mental derangement except perhaps his failure to comprehend the extent of his wife's disease and the absence of anxiety for the children's safety. He endeavored to convince her of her error in supposing it necessary to sacrifice the children, and manifested no excitement on the subject of religion. I called the next day and found the woman in bed in about the same condition and the next morning about four o'clock I was summoned by a neighbor, and upon going to the house found that the husband was possessed by the same delusion as his wife had expressed; he was fully as excited and expressed a desire to kill his children as she had done. At the end of a week they were transferred to the Michigan Asylum for the Insane at Kalamazoo. In six months

from that time the wife had made a good recovery, and now at the end of five years the husband is still at Kalamazoo, and in Dr. Palmer's opinion will never recover. I cite this case in view of Dr. Stearns' remarks. He said—if I understood correctly—he could not conceive of communicated insanity leading to organic changes. Here certainly was a case that began with the wife distinctly. The husband so far as the neighbors could judge and as far as I could judge from my first call showed no evidence of insanity, but in forty-eight hours was affected with the same delusions and certainly in his case it has proceeded to organic change, and in her case the recovery is complete.

I do not wish to be understood as defending the claim, that insanity is in any way contagious as we recognize the contagion of small pox, measles, &c., but I am of the opinion that insanity in one person may be the exciting cause of the disease in another and in the case so affected the disease may progress to gross organic disease of the brain.

Now I have no doubt but that in the case I have cited the man was of a weak mental make-up; I know nothing about his family history, but I believe that without that exciting cause it is possible that he may have gone through life without having an attack of insanity and that this attack of insanity was brought about in the manner I have described.

Dr. ANDREWS. I wish to say a word in favor of Dr. Stearns' position as outlined in his remarks which seem to me to be correct and to offer the only explanation of these cases.

I can not conceive of insanity being communicated, if by insanity, we mean, what I think all of us do mean at the present time, a disease, a pathological condition of the brain. In regard to the cases whose history has been given by Dr. Goldsmith, it is much easier to believe that they became independently insane and that there was merely a coincidence of time as to the outbreak of the disease, than to believe that it was communicated. They were both subject to the same influences and the same environments, and the fact that their delusions happened to be of the same character does not prove any communication of the disease, but simply shows that under similar conditions, similar delusive ideas were originated.

Some of these cases of so-called communicated insanity are those in which there is a powerful impress of the insane delusions of one upon another peculiarly susceptible person, and not a matter of disease at all. It is not an unusual thing for a wife to accept

fully the ideas and beliefs asserted by an insane husband and enter into them in the most positive manner, or on the other hand, if the wife is the stronger man of the two, for the husband to accept her insane ideas.

Another explanation occurs, that in some of these cases we do not have genuine insanity, that the person is not really suffering from cerebral changes that characterize that disease, but simply entertains a false belief. We all recognize these conditions, as we see them in the existence of such theories as Spiritualism, Mormonism and the like, and people are often controlled by them as fully as if they were morbid delusions.

The fact that when these persons are separated from each other, they regain their normal mode of thinking and views of life shows that the condition depends upon the acceptance of a false belief and is not an insane delusion.

To conclude, I can not conceive of communicated insanity any more than I can of any other form of disease in which we do not recognize infection or contagion.

Dr. NICHOLS. Mr. President: I have had recently under my care the case of a woman, one of two single sisters, both between thirty and forty years of age of a highly nervous temperament and belonging to a family of wealth and culture. I do not recall that there is any insane heredity in their cases. In consequence of an affliction in the family I think, one of them first became insomniac and in my judgment gradually became actually deranged. The other, who had the weaker mind of the two, though not a person of particularly weak mind, followed the morbid history of the first as nearly as a sane person could imitate another. The conduct and delusions of the second sister who was the younger of the two, became the same as those of the first. The family was advised—very wisely, I think—that these sisters should be separated as a necessary condition to their recovery. One of them was sent to me and made a good recovery and the one that remained at home is reported to have made an equally good recovery. Now it seems to me that the conclusion of Dr. Goldsmith in respect to the ætiology of the second of these cases is the correct one, though I reason a little differently perhaps, in respect to it, from what he does. The distinction between a delusion of insanity and a delusion of superstition or ignorance is well understood by us all. We all agree that real insanity, insanity whose victim can not control its manifestations, is the result of a morbid condition of the brain. There is a difference of opinion—

a matter not susceptible of proof—as to the proportion of cases of insanity in which there is at the outset, an organic disease of the brain and those in which there is only a functional disorder of that organ. If I recollect correctly an eminent cerebral pathologist has lately said that in only five per cent of cases of insanity that occur is there organic disease of the brain at the very outset. I have supposed that the per cent of organic disease at the outset was larger than that, but I am not sure of it by any means. Now, in the case reported by Dr. Goldsmith the mind of the husband was so intensely exercised upon a religious subject, in such a way and for such a time as to disorder the man's brain function and thereby derange his mind. That seems to have been the judgment of most if not all of those who investigated the case, and it may fairly be taken for granted that such judgment was correct. The wife was also of a deeply religious nature, and though stronger than he, perhaps, intellectually, she naturally sympathized strongly with her husband, as she was constantly subject to his teachings and influence. She was also subject to the same fanatical religious associations and teachings outside of their roof, as he. At the time of the horrible killing of the child she probably had not passed the line that separates sanity from insanity, but the cerebral excitement and susceptibility had become very great. It could not under the circumstances have been otherwise. Then came the death of her loved, innocent child at the hands of its father, her husband; and when she found that the child did not return to life, as in the ecstasy of the fanatical faith to which she had been wrought up, she probably for a short time thought—perhaps really expected—and recognized that it was not only hopelessly dead, but the terrible tragedy of its death, it is no wonder that the agony of her grief and of her remorse, perhaps, for not rescuing her child from her husband's purpose, caused her in the lapse of a month to become downright insane. Her recovery and the limited manifestations of the mental disorder while it lasted, indicate to my mind that the disease was not organic. Sympathy and association are powerful agencies in leading susceptible minds—particularly those of the young—into lines of morbid thought, feeling and action, which in turn become essential links in the chain of causes of active mental derangement; and while I would not erect such cases into a separate class for the sake of indicating an interesting peculiarity in their ætiological history they may appropriately be called cases of sympathetic insanity. As Dr. Andrews remarked, I take it that none of us

would for a moment subscribe to the doctrine that insanity is contagious and is communicated from one person to another as small pox is.

Dr. GOLDSMITH. Mr. President: I rise simply to say that I appreciate the propriety of the criticism of the term "Communicated Insanity." It is the one almost naturally used in the English language and I selected it because of its utility. Very likely others can be found that better describe the condition. The remarks of some of the gentlemen would seem to imply that I think the active person the sole cause of insanity in the passive person in a case of communicated insanity. This would of course be absurd. I believe that one cause alone practically never produces insanity. There is always an association of causes. The husband and wife were in this case both subjected to the same conditions, but it seems that the influence of the husband was the most efficient exciting cause of the wife's insanity, and determined the form of the disease. The very unusual fact is that the influence of the mind which was working pathologically seemed to mould the other mind just as is common with minds that are working normally.

Dr. B. D. Eastman, of Topeka, Kansas, read a paper, "Mesmerism versus Fascination."

The President read an invitation extended by the Sister Superior of St. Joseph's Retreat at Dearborn, Mich., to the members of the Association to visit that institution. Referred to the Business Committee, and on motion of Dr. Hurd a vote of thanks was extended to the Sister Superior for the invitation.

Dr. H. A. Buttolph, of Short Hills, N. J., read a paper "On the Organization and Management of Hospitals and Asylums for the Insane under Single and Dual Heads."

Dr. CALLENDER. In response to the paper just read by Dr. Buttolph, I think I voice the general sentiment of the Association in saying it was apt and opportune. Avoiding any allusion on the part of the Association to the recent history of the Morris Plains Asylum, or to any personal matters connected therewith as given in the paper, moved of my own accord and supported by the suggestion of several senior members of the body, I submit a motion to the effect that this Association emphatically endorses the positions of the paper in its very clear and forcible exposition and vindication of the system of a single responsible medical chief officer in the organization of hospitals for the insane, as propounded by the resolutions of the Association in 1863.

Dr. Callender's motion was carried.

Dr. NICHOLS. Mr. President: In 1876 a Committee was appointed to collate the propositions and resolutions of the Association adopted from the time of its organization to that date, in regard to the organization of asylums and hospitals for the insane, their management and other important questions that had claimed the consideration of this body, and have them printed in a pamphlet. That was done, and a copy furnished all the members of the Association at that time. I hold a copy of that important pamphlet or book in my hand. Since their original distribution a good many gentlemen have come into the Association, and it may be that some of the new members have not had a copy and may like one. The Secretary informs me that he has a large number on hand. I suggest that he be requested to furnish a copy to all the members who do not possess one.

Secretary Curwen signified his intention of sending a copy to each member of the Association.

On motion the Association adjourned to Thursday, June 16, at 7 P. M.

At 8.30 P. M., Wednesday, the members of the Association were given a reception by the medical societies of Detroit.

On Thursday, June 16th, the Association enjoyed an excursion by boat to Rushmere, on the Detroit River, starting at 9.00 A. M., and returning at 5.30 P. M.

The Association was called to order at 7 P. M., Thursday, June 16th, by the President, Dr. Grissom.

The Secretary read letters from Dr. S. S. Schultz, of Danville, Pa.; Dr. Bancroft, of Concord, N. H.; Dr. Payne, of Westboro, Mass.; Dr. Booth, of Morris Plains, N. J.; Dr. Channing, of Somerville, Mass.; Dr. Parsons, of Sing Sing, N. Y.; Dr. Bucke, of London, Ont.; Dr. Strong, of Cleveland, Ohio; Dr. Richardson, of Athens, Ohio, and Dr. Quimby, of Worcester, Mass., giving reasons why they could not attend this meeting and expressing their regret.

Dr. Brown on behalf of the Committee on Time and Place of Next Meeting reported in favor of the third Tuesday in May, 1888, as the time and Fortress Monroe, Virginia, as the place of next meeting.

On motion of Dr. Roberts the report of the committee was adopted.

Dr. Chapin moved the appointment of a Committee of Arrangements for the meeting of the Association in 1888.

The Chair announced that such committee would be appointed at a later date.

The President announced as the next order of business the reading of a Memorial of Dr. John P. Gray, by Dr. J. B. Andrews. [See page 21.]

Dr. Andrews moved that the President appoint a committee of three to draft suitable resolutions on the death of Dr. Gray, on behalf of the Association. Carried.

The President appointed as such committee Drs. Andrews of New York, Clark of Ontario and Callender of Tennessee.

The committee retired for deliberation.

Dr. Grissom pronounced a eulogy on Dr. Gray. [See page 29.]

At the conclusion of Dr. Grissom's remarks Dr. Andrews from the committee appointed by the President, offered resolutions, which on motion of Dr. Gilman were carried, the members standing. [See page 31.]

Dr. Draper read an obituary of Dr. E. R. Chapin which was followed by an obituary of Dr. Bassett by Dr. Gilman, after which the Association adjourned to 9.00 A. M., Friday, June 17th.

At 8.30 P. M., the members of the Association attended a reception given by Ex-Governor and Mrs. R. A. Alger.

The Association was called to order at 9.00 A. M., Friday, June 17th, by the President, Dr. Grissom.

The President announced as Committee of Arrangements for the next Annual Meeting the following: Drs. W. W. Godding, of Washington, D. C., R. Gundry of Baltimore, J. D. Moncure of Williamsburg, Virginia, R. Barksdale of Petersburg, Virginia, and the Secretary, Dr. Curwen, *ex-officio*.

Dr. Hurd moved that the memorial prepared by Dr. Draper of Dr. E. R. Chapin, the memorial by Dr. Gilman of Dr. Bassett, the memorial by Dr. Clark of Dr. Metcalf, and the memorial by Dr. Andrews of Dr. Gray be published *in extenso* in the minutes of the Association. Carried.

Dr. Chapin then read a "Report of a Case," and was followed by Dr. G. H. Hill, a paper on "A Few Observations on the Treatment of Epilepsy."

The President announced as the next order of business a paper on "The Colony System for the Chronic Insane," by Dr. George

C. Palmer. Dr. Pratt stated in behalf of Dr. Palmer that he had been obliged to leave the city, and had intended to leave the paper with him for presentation. He moved that Dr. Palmer's paper be accepted as read and that it be published in the *AMERICAN JOURNAL OF INSANITY*.

Dr. Goldsmith moved that other papers be proceeded with and that Dr. Pratt be requested to obtain the paper of Dr. Palmer if possible and read it at the afternoon session. Dr. Pratt stated that it would be impossible for him to obtain the paper in time for presentation at this meeting and renewed his former motion which was adopted.

The Secretary read a communication from Dr. John S. Butler of Hartford, Conn., expressing his regret at being unable to attend the meeting and forwarded for presentation "A Report of a Case."

Dr. Cowles read the next paper, "Nursing Reform for the Insane," and presented photographs illustrating the styles of uniform, etc., in use at the McLean Asylum.

Following Dr. Cowles's paper Dr. Hurd read a paper on "Gastric, Secretory and Other Crises in General Paresis." [See page 60.]

The President announced the following subject for discussion: "Are Dipsomania, Kleptomania, Pyromania, etc., valid forms of Mental Disease?" Do uncontrollable impulses to use stimulants, to steal, to burn, etc., develop independently of other evidences of insanity? [See page 52.]

General discussion then followed upon other papers read at previous sessions.

Dr. CLARK. In reference to Dr. Hill's paper on the treatment of epilepsy I would like to ask the Doctor if he has made any use of borate of soda in the treatment of epilepsy.

Dr. HILL. No, sir. I have used it only in a few cases for perhaps a month, but I did not get any marked results from it, and did not persist in experimenting with it.

Dr. CLARK. I would like to ask Dr. Hill whether he ever uses a mixture of hydrobromic acid and the salts. I have always found that if you saturated the salts with hydrobromic acid only half the quantity of the salts is necessary. The alkali base of the salts has no particular medical qualities. The haloid elements in these salts are those containing medical properties. Some nine years ago I gave nitrate of amyl pretty extensively, and I found that in some cases it helped materially. I did not find a case in which it really cured the disease, because I hold with Dr. Hill that

when epileptic seizures once become chronic the case is hopeless, but I found that the fits were fewer in many such cases; that the intermissions were longer and also that the fits were not so severe as when not under the effects of the nitrate of amyl. I found in all cases where we had a fat patient, and therefore of full habit, that the nitrate of amyl did more harm than good. The seizures were more violent after the use of that remedy than before. But on the whole it had a beneficial effect; the fits were less frequent and in many cases less severe. That is my experience in the treatment of sixty or seventy cases with this drug. To epileptics not insane I have always recommended that they use this drug in this way; that they carry it in a little glass bulb, five drops in a bulb which might be kept in the vest pocket and which they might be able to crush and inhale wherever they might be. Of course, this method is only open to those patients who have premonitions. The action of the drug seems to be merely static, hence its benefit when epilepsy is accompanied with anæmia.

Dr. HINCKLEY. I would like to ask Dr. Hill if he ascribes the cause of status in the case which he reports to the cessation of the treatment by bromide? I had two cases of status epilepticus in which the bromide had been kept up very regularly until the appearance of the status and both cases died.

Dr. HILL. I was not sure that this was the cause although it seems so in three or four cases that I have had simply because they went off in this way a short time after the bromide treatment had been discontinued, but like the Doctor I have had patients die in a status epilepticus who were on bromide at the time.

Dr. FROST. A case of considerable interest came under my notice a few years ago. A man, epileptic, twenty-five years old, preacher, forged a note and was sent to penitentiary. From there he came to the hospital for insane.

The case seemed to be a typical case of epileptic mania. He was of very full habit and during a severe attack of epilepsy was bled freely. He had but one convulsion after that so far as I know, seemed to get well, went home and for three years has worked at his trade, that of plasterer.

He has been to see us twice and reports himself well and able to work every day.

Dr. FLETCHER. Referring to the paper of Dr. Cowles I desire to say that I think the subject a most important one and wish to thank him for his valuable paper. It was from him (Dr. C.) some four years ago that I gathered the idea of having nurses, of train-

ing the attendants for their special work, and ever since that time I have been trying in a feeble way to instruct them by giving a course of lectures to all who would voluntarily attend. I consider that a good deal of good has been done, and in future I shall compel every attendant to take a complete course of instruction whether willing or not. Heretofore it has been merely voluntary. I am of the opinion that the relation of physician and attendant to patient ought to be like that of the architect, the supervisor of construction, to the workmen; success, if it is to be found, is found in the careful treatment and nursing of patients by well-trained attendants. They are the ones that live night and day with the patients and observe them. I have endeavored to instruct attendants to keep careful notes of cases, in their own manner, giving them a general plan, but instructing them to use their own language and their own ideas in keeping track of special cases, and I have been extremely interested in the cases so written out. On the other hand I have tried to avoid letting the attendants get the idea that they were physicians or surgeons. I would not allow them to prepare the medicines as is done in some general hospitals, but have desired to make them careful attendants and friends and counselors of the patients, leaving the physician and the apothecary to attend to their departments.

As I said before the paper has been extremely interesting and to me one of the most instructive I have heard.

Dr. CLARK. I would like to ask Dr. Cowles whether when he hires nurses he examines them as regards general education. It seems to me a great deal of success could be obtained from the lectures only from those who had sufficient education to appreciate and understand thoroughly the lectures given even in the most rudimentary way. I would like to ask whether in the hiring of these nurses any preliminary English education is required before they are engaged, and to what extent.

Dr. COWLES. Every applicant is obliged to make an application upon a blank provided for that purpose, in which the answers are written to certain questions. The manner of doing this tells in very many cases just what we want to know. We have adopted more recently the practice of sending a private circular to persons whom the applicants refer to for recommendation or to some other person who is likely to know the applicant. This circular contains a series of questions to be answered confidentially. In this way we get information of great value. Then the nurse is on probation for two months after she comes. Some of the applicants

come in person and we have a chance to see them. We really have no trouble in making good selections. If after they have been in the house a short time they do not seem to do well they are obliged to leave.

Dr. EVERTS. I would like to ask why all these reports of training schools for nurses speak only of women, of female nurses. I noticed in the photograph of Dr Fletcher's class only one male attendant who seems to have received instruction. It strikes me that in attendance upon the insane the educated male nurse is the more valuable. In my experience we can get a relatively better class of women than of men as attendants in insane hospitals. In all these classes you seem to be educating women. Why is it? Don't men accept the education? Don't they stay long enough? Are they not willing to stay long enough, or don't you pay them enough?

Dr. COWLES. That question requires several items in the answer. The women in the first place are of relatively better material; they lend themselves more readily and plially to such work; it is easier to initiate the reform with them and get the scheme and its arrangements established. As a matter of fact in the general hospitals the nurses are commonly and mostly women. There are very few men comparatively, employed in a general hospital. The men become mere assistants, "carriers of water," etc., with the exception of a very few. It made just that difference I remember in the general hospital work. Under the training school system we wanted men who were more like servants. In the care of the insane it is as Dr. Everts says; we need the training of men just as much as we need the training of women, but with us the women were in the spirit of it, the men were not. They looked upon it as women's work to be instructed and trained as nurses. As a rule they had no particular desire to be trained—to make a profession of nursing. A curious experience happened to us last year. I felt secure of the work with the women; we had a school, there was no risk to run, and I thought it time to enlarge the work with the men. We had a very good corps of attendants, and early last fall it was announced to all the men that the time had come to carry out the wishes of the trustees and that they were to have more explicit instruction, all of them, in their duties so that it would be easier for them to understand what was to be done, and easier for us to tell them. They were to do no special studying but in a period of ten weeks they were to have five lectures—on alternate weeks, in two divisions or classes. We gave them instruction in regard to hæmorrhages, dislocations,

fractures, suicidal attempts, etc., every other week and in the alternate week they were required to read half a chapter of the text-book prepared by a committee of the British Medico-Psychological Association. Then the assistant got them together and talked over what had been read as a topic upon which they had made a little preparation—some questions being asked. At the end of two months we said: "Now a class will be formed of those who wish to be trained and take certificates of graduation of two years." Only six men of the thirty then in the service joined the school; and about twelve left the service during the next two months. They had been in it some time, and were not intending to become nurses as a regular occupation; some were afraid, if they stayed, that others of the school would be preferred before them and would have the better places, and a kind of panic seized them. So that ten or twelve went out distinctly because of the innovation. This was really fortunate, for we immediately filled their places with applicants of good quality who were anxious to take the instruction, and thus we have formed a class of fifteen men who are in full course of instruction and who are interested in the work.

Dr. EVERTS. Do you increase the pay of those who graduate?

Dr. COWLES. As pupils the pay of the women is reduced from what it formerly was. After they graduate we pay them twenty-five dollars instead of twenty, the former maximum.

Dr. FLETCHER. We had seventy-two starting in the class at the commencement of the first course and by the end of the second course I think all the men had dropped out but five. There were about seventy-two—equally divided between the sexes—and at the end of the second course all but one of the males had dropped out and the only reason he remained was that Dr. Everts had had him under instruction fifteen years ago and he had remained in the hospital ever since. Another reason why the men do not stay is that it is very difficult for us to retain the same men in the service; they all expect to have their situations change as soon as the political party changes. Still another reason is that they are not paid sufficient salaries; they make more money by moving on—especially in the spring. We can engage any quantity in the fall at twenty dollars per month, but in the spring they have received enough money to go west and travel and we therefore lose them, whereas the women are willing to stay all the time. It is rarely that they leave us except when they are discharged or when they are getting married. The women get eighteen dollars, after

they graduate are raised to twenty, and after two years' service receive twenty-two.

Dr. COWLES. There is an important point there in regard to the matter of economy. I know that it is a question which creates some apprehension on the part of those who contemplate this work. We pay our pupils the first year twelve dollars per month, the second year fifteen dollars per month, and after they graduate they have twenty-five dollars per month. Thus the aggregate is about the same.

Dr. HURD. What success have you had, Doctor, in the division of ward service in the female department? I understood from Dr. Tuttle last year that you intended to provide for each ward a lower grade of attendants to do the menial work, like scouring and keeping the wards in order so that the nurse could be reserved for higher duties. What success have you had with that plan?

Dr. COWLES. The reason for this was because of the peculiar class of patients we have. Formerly our attendants were obliged to do all such work such as the patients in State hospitals do; the scrubbing of floors—the drudgery of all kinds. In order to get them to be more as companions for the patients I have employed a ward maid in each pair of contiguous wards in which there are about twenty patients and two dining rooms—a ward maid who does the more menial work—simply what would be done by poor patients in a State hospital and which we could not ask our patients to do. As a matter of fact, if I am rightly informed our nurses do more house work than is generally done by the head nurses in State hospitals—chamber work, work in the parlors, etc. The ward maid simply supplements the nurses in some of the work, and the arrangement works well.

The Association adjourned to 2 P. M.

The Association was called to order at 2 P. M., by the President, Dr. Grissom.

The President announced the first order of business discussion upon "The Best Method of Providing for the Chronic Insane."

Dr. WISE. Mr. President: When the chairman of the Committee of Arrangements notified me a short time since that I would be expected to open this discussion it was my purpose to briefly outline the scope of the discussion on the "best method of caring for the chronic insane." Adding a few individual impressions derived from a practice in a State in which there are two large asylums for the chronic insane and a system of separate care for that class which has been in operation for nearly two decades.

These two asylums have grown to maturity and have established the system in the State of New York. It may not be relevant, Mr. President, to refer to the causes that led to the creation of the Willard Asylum, as they are historical, but it may be germane to the present discussion to refer to the seal of disapprobation of the separate care of the chronic insane upon the records of the Association in a series of resolutions which were almost contemporaneous with the creation of the Willard Asylum. The mind that moved the creation of this asylum, and conceived its beneficent plan is still active and with us and it may therefore be inappropriate for me to make any further allusion to this matter at the present time further than to observe that whether the promoters of the Willard Asylum considered the separate care of the numerically greater class—the chronic insane—the best method or not, it is certain that this was the first instance in this country in which the question was met in a comprehensive manner.

Dr. FLETCHER. I was not a member of the Association in 1866 and I would like to ask Dr. Wise what resolution he refers to.

Dr. WISE. What I had reference to particularly is in regard to the separate care of the chronic insane. As older members may know the probable failure of the Willard Asylum was predicted and much was said of the deteriorating tendencies which the separate care of the chronic insane might have upon the whole asylum question. These resolutions also indicated the limit of numbers for which asylums should be built. At the present time we have asylums three times beyond the limit of six hundred stated in the resolutions.

Dr. PRATT. I would like to have a broader foundation for discussion—a more complete presentation of the results of the various methods of caring for the chronic insane, especially, detailed descriptions of what is now being done in this direction in different localities and the results already reached. Permit me a few words on one point. There seems to be, on the part of some, a feeling, a fear, or a conviction, that there is danger in removing patients, of any class, from the immediate shadow of the asylum. Our experience, in Kalamazoo, is not as yet very extensive it is true, but so far as we have gone, the results tend to establish just the opposite. We find, among the incurable class, many who are exceedingly glad to get out of sight of the asylum. They are manifestly more contented in the somewhat homelike buildings in which we place them. We have felt our way to a choice of methods by testing their effects on the patients; and we

find that the patients, those who are fit to be in detached cottages at all, greatly prefer those from which the buildings of the asylum can not be seen.

There is, in this connection, another idea, Mr. President. We all hold that change of environment, of scene, of soil, of surroundings, is beneficial to sane and insane, especially to those who are feeble in body or mind. Take patients who have been insane for years—and half of our patients have been insane five years or more—and they seem to have lost the stimulating influence of associations and surroundings; they have been accustomed, for years, to the wards, to the institution and to the same set of people, and they seem to have settled down into a hopeless condition of stupidity. Now we find, that removing them to these houses, these cottages, away from the asylum and to an entire change in all their surroundings, putting them in houses where they come and go like the employés on a large farm, has, in some instances, worked a gratifying change in their mental and moral conditions; all due to the influence of change. We have places where we furnish accommodation for quiet patients in sight of the asylum; but the unanimous verdict and request of them all is "Let me go down to the farm." They are more contented there than anywhere else. We have had no trouble about their attempting to escape, though, during the day, they are as free to go in and out of the house as if they were hired men on a great plantation. It is true they have an attendant, as they would have in the wards at the asylum, and he is chosen because of his experience with this class of patients as well as because of his knowledge of farm work and his capacity to judge of the capacities of the men; whether they should labor the entire day or part of the day, or not at all. We do not insist that our experience is a final contradiction to the idea that it is dangerous to detach the patients from the central building, but we do find that so far, this seems to be a highly successful plan of caring for the chronic insane. We have our two farms connected directly with the main asylum by telephone and we get instant communication when needed. When we have developed the colonies to the extent of accommodating seventy-five patients or more we shall place a physician permanently in the colony itself; but the central control will remain with the medical superintendent at the main office of the asylum.

This topic is one of great interest and of general importance. The rapidity with which the chronic insane increase in all institutions demonstrates the necessity, in every State, of doing some-

thing. Fifty per cent of our patients, now at Kalamazoo, are more or less of the chronic class; almost fifty per cent, as I say, have been there five years or more, and out of four hundred, practically incurable cases, we find that we have at least 250 whose labor can be made profitable to themselves and to the institution. So long as they are in the institution, in wards, we can not utilize their labor to any advantage. It disturbs the order and system of the asylum; they are too far from work; but when they are outside we make rules especially for them. We expect to keep fifty at work in our tailor shop. We have started an arrangement by which we expect to supply all our patients, male and female, with clothing manufactured by themselves—all the clothing used, except by private patients. We have arranged a shoe shop; also a place for manufacturing, cleansing and refitting all mattresses we use. We find by these and other arrangements we have inaugurated that we shall benefit the patients and promote economy. I think of nothing further that I wish to say now upon this point.

I hope that your programme next year, gentlemen, will be so arranged that this subject may be among the first matters for discussion. I regard it as more important than anything else likely to come up.

Dr. HILL. I did not understand you fully in regard to the colonies for women.

Dr. PRATT. They will be arranged, substantially, like the colonies for men, preserving a complete separation of the sexes, and maintaining a day and night patrol.

Dr. HILL. You will employ them on the farm?

Dr. PRATT. On the farm—where, already, many express a desire to engage in the culture of blackberries, raspberries, strawberries and other small fruits and in the care of chickens, ducks and all poultry. We have a beautiful brook at the dairy farm and two small lakes on the other, and all the other needed facilities for doing these things, and we find that some of the female patients take great satisfaction in the prospect of this kind of work.

Dr. HILL. Where will you keep your totally demented patients?

Dr. PRATT. We shall expect, in time, to keep them in buildings specially constructed for the purpose. If there seems in any case to be danger of early or immediate dissolution, such will be kept in the asylum. You understand that with an assistant physician

in each of these colonies, that we are developing, and with communication by telephone, should any difficulty arise requiring the prompt return of a patient to the asylum proper, the transfer can be made without delay.

We expect to engage some of our females at the colony in the manufacture of butter. We happen to have women, among our best chronic patients, who were raised on dairy farms, who are anxious to take hold of this work, and I have not the least doubt, from what we see them do in other directions, that they will be quite efficient. At all events we now save twenty-five hundred dollars per annum in the cost of the milk we use, by labor that costs us next to nothing. We employ a man and his wife, the man to supervise the dairy farm work, the wife the house work, but all the heavy work of the house is done by patients. We are saving, as I say, in the single article of milk, twenty-five hundred dollars, and in other respects we are saving in the production of vegetables that we would otherwise have to buy. Our butter costs us about six thousand dollars a year, and we certainly shall soon be able to manufacture all we use. There is no doubt about it. If we pay or save interest upon the investment, the beneficial results to patients are all the profits we expect or desire.

Dr. PATTERSON. In regard to these very harmless patients who require no restraint, who come in and out—why couldn't they be sent back to their homes?

Dr. PRATT. Their minds are too feeble to be trusted alone; many of them have no homes, and, to some, the homes they have would be a hell. These, if sent home, would all be brought back within a few months worse than ever; this is true of many. They could not endure the conditions of their homes at all; and we are permitted by our law to exercise a sound discretion in the matter. An improved patient, likely to be benefited by returning home, who has a proper home to go to, of course, is invariably sent: but when we know, with reasonable certainty, that they are sure to come back to us in a few weeks or months, worse than ever, we think it wise and humane to keep them.

One farm is about two the other two and a half miles from the asylum. One was selected to be purely a grass farm—for dairy purposes purely. That is where we get our milk. There was no other place within two miles of the asylum where we could get such a farm. The other farm is chiefly prairie land, part of a beautiful prairie, including magnificent forest and beautiful lakes, lying two and a half miles southwest. Our access to it is

mainly by a private road, without any exposure of the patients to the gaze of the town or to the danger of railroad crossings. During summer, almost daily picnics from the asylum to these beautiful grounds, will be provided for.

Dr. GERHARD. I would like to ask Dr. Pratt how these separate cottages are lighted?

Dr. PRATT. They are lighted by kerosene lamps inclosed in glass boxes locked, the keys solely in the possession of the attendant.

Dr. GERHARD. What arrangement do you have for heating?

Dr. PRATT. They are heated by steam, not by hot air, and we find our arrangements to work so well that we shall probably heat all our other colony buildings in the same way. Our experience with the one colony building, warmed through the last winter, shows that the expense of heating it is slightly more, per capita, than in the main asylum.

Dr. GERHARD. Do you find it necessary to have any special guards at the windows?

Dr. PRATT. No guards, nor bars nor anything of the kind. The windows are raised or lowered just as the occupants may please; they sit by an open or closed window just as they would at home. There is nothing in the buildings that even suggests restraint. There is, in fact, no restraint, except that moral restraint which we impose as a condition on which alone they can remain at the colony.

Dr. HURD. The sleeping accommodations, where are they?

Dr. PRATT. Up stairs, except for the farmer and his wife.

Dr. GOLDSMITH. Have you any guards about the windows of the sleeping apartments?

Dr. PRATT. No, sir; they can go out at night but we have had no difficulty about that for over a year.

Dr. GILMAN. Do you propose to allow the female patients when you construct these cottages to have the same liberties about going out at night?

Dr. PRATT. No, sir; we do not. We shall have around them the same guard that is maintained at the main building.

Dr. BROWN. What is the probable cost of these buildings? Are they to be of wood or brick?

Dr. PRATT. We planned the first one to accommodate thirty patients, and the cost was about \$6,500. We can accommodate forty there if necessary, but it would be overcrowding. We can accommodate thirty very comfortably. At the suggestion of the

legislative committee we propose to build all our other houses of brick. The cost of the brick buildings will be considerably more than of wooden ones.

Dr. CHAPIN. Where will the patients dine?

Dr. PRATT. We may make a somewhat different arrangement in regard to that. At the dairy farm the men all dine together in the common dining-room of the farm house. If you were to visit that place, not knowing the character of it, you would suppose yourself in a large farm house, pure and simple; it looks like a home, not like an asylum at all. Everything is plain, neat, cosy and comfortable. We are now considering whether we will arrange for a dining-hall common to all the houses of a colony, for females, or, whether they had better eat in their own home, as we term it, and as the patients are already beginning to term it.

Dr. HURD. Do you intend sending only chronic cases there?

Dr. PRATT. We shall send there some convalescents, (to tell you the truth), partly to prevent the impression that it is a home without hope. We shall mix in also a few acute cases. We don't want the patients or their friends to get the idea that all who go to the colony are incurable. For reasons that you all understand, such impressions must be sedulously guarded against.

Dr. CHAPIN. Don't you think that seventy-five per cent of your cases are chronic?

Dr. PRATT. I am giving you the facts. We have in the asylum nearly fifty per cent of cases that have been there five years and more. And we have other cases that we know are going to become chronics, but they have not yet reached that condition of quiet which makes them safe patients to trust outside the asylum.

Dr. CHAPIN. I should think that it was a chronic institution now.

Dr. PRATT. It is more of one than we could wish. The institution at Kalamazoo has been in operation nearly thirty years; and when the Pontiac institution was established, some eight or nine years ago, as when Traverse City opened lately, all patients, without regard to class, that belonged to each new district, were transferred to the new asylum for the district, by which we were relieved to some extent. Then, again, the opening of the asylum at Ionia for insane criminals relieved us of some thirty or more. That is the only unusual relief we have had (except by death or removal) in the history of thirty years, and calculations on our history, year by year, since the fifth of its operations, show that there has been an increase of the chronic class (what we recognize

among ourselves as the chronic class) of about three per cent per annum.

We do not think it would be wise, from any point of view, either for the State or for the recent cases that need treatment, that we should permit these chronic cases to occupy the expensive buildings, originally constructed for the treatment and cure of the insane and not for the mere custody of incurables. Our asylum accommodations cost one thousand dollars per capita.

Dr. HILL. Does that include heating?

Dr. PRATT. Yes; everything.

Dr. HILL. Does it include land?

Dr. PRATT. No, sir. I am talking about the buildings. I say that our asylum accommodations cost about one thousand dollars per capita. Now we know, if the price of labor and material does not change, we shall be able to put up these proposed colony buildings for two hundred and fifty dollars per capita.

How to care for the chronic insane is a constant pressing question; what can we do, consistent with humanity and economy, to take care of the chronic class so that the hospitals proper may be reserved for the treatment of acute cases? We feel sure that our legislature will not, for years to come, make an appropriation to build another great asylum. We have two thousand patients now in the asylums and we have got another thousand in the State that need proper care. Instead of building another great asylum we ask our law-makers to make each of the three asylums, that now exist, the nucleus of an arrangement by which we can, to a certain extent, relieve ourselves of these chronic cases and make vacancies for acute cases. I think the time will come, too, when we shall provide for most epileptics outside of the institution also.

Dr. CHAPIN. When will this system be completed?

Dr. PRATT. I am not able to tell you yet.

Dr. PATTERSON. I would like to inquire how much cubic air space is allotted to each patient?

Dr. PRATT. The dormitories are of different sizes; some have single beds, others two beds, others eight beds, one has twelve beds; according to the necessities of each room we increase the cubic air space and the efficiency of ventilation. Please bear in mind that nearly all these patients are rugged, hearty and strong.

Dr. GILMAN. I gather from the remarks of Dr. Pratt that the largest amount of employment that is furnished these patients is upon the farm. Am I correct?

Dr. PRATT. Yes, sir; we expect to employ about fifty per cent in the shops proper.

Dr. GILMAN. I would like to inquire what during the dreary months of winter when the farm work is comparatively limited, what recreation, what amusement these patients are expected to have?

Dr. PRATT. Much the same as they have now in the asylum, and more, too, because they have the stock to look after, do the chores, etc. Every dining-room will become an amusement hall or chapel, as occasion requires. They will have their cards, chess, checkers, backgammon, etc., just as they have now.

Dr. GILMAN. In every well organized institution in the west we have an amusement hall, and during the long winter evenings the patients are provided with various means of amusement such as dances, dramatic entertainments, magic lantern entertainments, with instructive lectures, etc., and at this distance, two or three miles, it does not seem to me as though the patients in these cottages could enjoy the benefit of these amusements. On the Sabbath, too, we always have a chapel exercise for those patients who might in these colonies be deprived of it. In regard to the employment of patients it does not seem to me necessary to apply the colony plan. Between the past two or three years we have made additional provision by additional wings to the hospital at Mount Pleasant, Iowa, and we are to have four hundred patients in these wings. We have employed during the process of building about one hundred male patients, of the chronic class largely, in the construction of this building, in the carrying of brick and mortar, stone and lumber and all such kind of work, the laborer's work. We also employ on the farm and garden and in our stables, in the laundry, boiler-house and with the ordinary work about the house these cases—from one to two hundred of them. We have had no difficulty in the matter of classification of the laboring class by setting apart wards where these chronic cases would make it their home, and look upon it as their home, and they have had there the same liberties as the patients in the colony plan as portrayed by Dr. Pratt. We have also had wards in which the patients were all paroled and the doors thrown open so that they could go out—every patient on the ward—but I wish to say in reference to that matter that I think it is educating a class of genteel loafers, and that the result is that when they return home they feel that they must continue in the same practice of loafing, and that the tendency is that they will be induced to do

so instead of taking hold of their usual vocations as they had previously to their insanity, and consequently I do not favor the parole very much. I believe it is vastly better that the patients should have some employment; some light work; whatever is adapted to their physical condition, and I do not see the advantage to be gained by sending them away at a long distance from the main building where the physician will have to be called by telephone and then have to drive two or three miles in case of accident.

Dr. PRATT. We propose to have the physician right on the ground after a time.

Dr. CLARK. Mr. President and gentlemen: There is a matter that I should have brought to the attention of the Association earlier. At this late hour I wish merely to present the gist of it. Two years ago I brought before the Association the desirability of having some uniformity in the tabulating of autopsies held in all the asylums in the United States and Canada; and by common consent putting these tables in our reports so that we could in some way thus classify the results of our *post mortem* examinations. I had intended to be present at the meeting last year, but was not able to get to Lexington, and I see that I was re-appointed as chairman of the committee to consider the matter this year. I wrote recently to the other members of the committee. I heard nothing from Dr. Schultz. Dr. Bryce is in Europe and Dr. Andrews wrote to me that he was willing to endorse anything the rest of us might adopt as our report. Dr. Fisher wished us to accept the excellent tables which he has used for the last two years in his reports as his contribution to the work of the committee.

I feel, Mr. President, that there is a great field open for us here, that we have neglected to a large extent. When we consider that we have over one hundred thousand insane under the charge of the members of this Association, and that about six per cent of deaths would give us six thousand bodies to utilize, it is quite evident that could we take advantage of this material in some definite way we should certainly arrive at some most satisfactory results. Out of this number of deaths we ought to have at least two thousand autopsies. The tables which have reached me—such as Dr. Fisher's excellent paper and others—have one lack which I think should not exist, and which is overlooked. These papers give only the pathological conditions of those who have died. They classify observations in no common way; each one has its

own classification, and so there are very many classifications, but none of them have any reference to the mental condition; and, to the conduct of the patients, I think it is a great omission, for not only do we wish to find the footprints of disease after death in searching among the ruins, but we wish to bring alongside of those the psychical condition of the patients in life. The pathological conditions and the *ante mortem* mind phenomena, a duality that can not be separated during life; we wish to put in juxtaposition what the patient does and says and feels when he is alive with the morbid conditions found after death. I have felt that if such tables could be made they would stimulate us to hold *post mortems* more frequently than we do, and possibly assist our diagnosis and prognosis. We have a great deal of material wasted which if we knew we were required to tabulate results would be utilized to a larger extent than we do at present. We can not all be expert pathologists, although some of the members of the Association are fortunate enough to have such pathologists, as at the Utica asylum and at Boston. Yet if we could procure notes of gross lesions it would be a step in advance. I do not believe there is any asylum where we could not get any microscopic work done, but even gross results would be so far satisfactory. I think this procedure would also have a good effect upon attendants. If attendants had the idea fixed in their minds that nearly all the bodies, one-half of them, or even one-third of them would be subject to physical examination the probability is that it would act as a check upon many of them who otherwise might be inclined to abuse patients. As we know, many of these brutish attendants have the cunning to inflict bruises where they can not be seen or are not likely to be seen. I do not say that this is often done, but in spite of all your oversight and severity there are always black sheep in every flock, and do what you will these attendants will sometimes inflict bruises in places where we would not be likely to find them by a casual examination. This is a side issue merely. What I want to know is, is it possible for us to get tables of at least gross results from two or three thousand post mortems every year? I think it is a field we have largely neglected and which I think all the members should be stirred up to cultivate. It is a big question and I do not intend to go into it largely at this late hour. I have Dr. Fisher's report here with his excellent tables. I present tables that I got up and which I intend to use, as a synopsis of our observations before and after death. I have adhered to the old nomenclature because of its generic terms. I

think the minute divisions of classifications are not practicable as a rule, and we have to take general terms in a disease which is so multifarious in its features. No two persons are alike in health, and no two are alike in the symptoms of disease in any form. The morbid conditions merge one into another like the colors of the rainbow, and until we can know all minute lesions we can not use a better nomenclature. I would like, if possible, to hear some discussion upon this subject, at least to hear an expression from the members of the Association as to the practicability of carrying out this idea which I have stated; in some practical way.

Dr. Wise moved that the same committee be continued upon this subject until the next meeting of the Association.

Adopted and on motion of Dr. Roberts the Committee on Arrangements for the next meeting were instructed to give the subject due prominence upon the programme for the meeting.

Dr. EVERTS. It is growing near the close of the session but I wish to offer a few remarks and present a resolution. When a man looks back upon one day of his life, or one year, or thirty years, and finds nothing in it to be discontented with it is pretty good evidence that he has not grown any in that length of time. Believing as I do thoroughly in the doctrine of evolution—that we grow and are not made—it seems to me that this Association has reached a point in which it is well to review its proceedings and see whether it has grown or not. If the “propositions” made by this Association thirty years ago are perfect then there is nothing to be said. If we now know more than was known at that time it is well that we should review the acts of that day and modify and change in accordance with our present knowledge.

I move that a committee be appointed to review the propositions and purposes of this Association and report at the next meeting whether any modification should be made.

Adopted and the Chair announced as such committee Dr. Everts of Ohio, Dr. Clark of Canada and Dr. Pratt of Michigan.

Dr. Wise, as chairman of the Committee on Resolutions offered the following which were unanimously adopted:

The Association of Medical Superintendents of American Institutions for the Insane at the close of their forty-first annual meeting and before separating for another year, desire to record their grateful appreciation of the hearty welcome and generous hospitality tendered them by the medical profession, the municipal officers and the citizens of Detroit and its vicinity.

Scarcely exceeded in attendance by any previous meeting in its history, it is exceeded by none in the fruitful work accomplished, and this, combined with a series of the most enjoyable entertainments, will render it a memorable time-mark in the annals of the Association.

Resolved, That to the Mayor, Board of Aldermen and Common Council of Detroit, for the use of the council chamber in which to hold their meetings; to the press of the city for full and faithful reports of proceedings and to W. J. Chittenden & Co., of the Russell House, for courtesies shown to the members and their ladies, the Association has been placed under obligations, and tenders thanks to each and all of them.

Resolved, That the members for themselves and in behalf of the ladies are greatly indebted to Parke, Davis & Co., for the pleasant facilities provided by them to view the city and to visit their large and complete laboratory, for their lucid and interesting exposition of modern pharmaceutical processes and for their elegant collation.

Resolved, That to the medical profession and societies of Detroit we tender our sincere thanks for their multiplied courtesies and hearty and bountiful reception.

Resolved, That to the "Friends of the Asylums of Michigan," who have proved themselves friends of the asylums of America, and particularly of their representatives, we are under deep obligations for the many courtesies tendered the members and their ladies, and for the enjoyable excursion on the river and lake to Rushmere and its accompanying entertainments; also to the Detroit Fishing and Shooting Club and to the Lake St. Clair Fishing and Shooting Club for the privileges of their beautiful grounds.

Resolved, That to General and Mrs. Alger and family we tender our earnest thanks for their gracious reception and the pleasant entertainment afforded the members and their ladies at their beautiful city residence.

Resolved, That the Association sincerely regrets the unavoidable necessity of declining the cordial invitation of the Sister Superior of St. Joseph's Retreat to visit that institution.

Resolved, Finally, that it is the sense of the Association that the eminent success of this meeting is due in great measure to the earnest endeavors of Dr. Henry M. Hurd and his associates of the Committee of Arrangements to make it such, to whom we tender our sincere and heartfelt thanks.

Dr. CLARK said: I have great pleasure in seconding these resolutions and particularly because of the courtesies which we from the other side of the border have always received from citizens, as well as from the members of this body. We have always been glad to welcome members who have visited us. We have not seen the time when they were not to us as our kindred. I for myself have felt that I can never be able to repay the hospitality received and I know that others of my brethren from Canada have a like cordial feeling.

The President, Dr. GRISSOM, then said: Gentlemen of the Association—Our work for this session is done. The excellent programme of the Committee of Arrangements has been executed. I now take occasion to wish you and each of you a safe return to your homes, a speedy reunion with those loved ones who await you and a re-entrance upon your duties with renewed vigor and interest. I beg leave to emphasize our thanks to the people of Michigan for their cordial and generous hospitality and greeting—Michigan, the great State of Michigan, the foster-mother of science and benevolence and the mother of statesmen. Nothing remains for me to say except to declare this Association adjourned to meet upon the third Tuesday in May, 1888, at Fortress Monroe, Virginia.

[Stenographically reported for the AMERICAN JOURNAL OF INSANITY by
T. E. MCGARR.]

BOOK REVIEWS.

Nervous Diseases and their Diagnosis; a Treatise upon the Phenomena produced by Diseases of the Nervous System, with especial reference to the Recognition of their Causes. By H. C. WOOD, M. D., LL. D., Member of the National Academy of Science. Philadelphia: J. B. Lippincott Company, 1887.

It goes almost without saying that this is a good book, and there can be little doubt that the world-wide reputation already achieved by the distinguished writer, both as teacher and author, will gain in growth by the publication of this new work.

After a general discussion of disease and of neurasthenia, Prof. Wood treats, in eleven chapters, of the following subjects: 1. Paralysis. 2. Motor Excitements. 3. Reflexes. 4. Disturbances of Equilibration. 5. Trophic Lesions. 6. Sensory Paralysis. 7. Exaltations of Sensibility. 8. Disturbances of the Special Senses. 9. Disorders of Memory and Consciousness. 10. Disorders of Consciousness. 11. Disturbances of Intellection. The whole volume embraces 500 pages.

Everywhere throughout these chapters are found that vigor, terseness, lucidity and honesty of statement so characteristic of the author. The numerous bibliographical data bear testimony to laborious research and these, together with the author's personal experience, render the work especially valuable as one of reference for the student and practitioner.

To us the concluding chapter on Disturbances of Intellection is of particular interest. It is in fact a treatise on insanity within the compass of seventy pages.

The author, slightly though essentially modifying Spitzka's definition so as to meet the objection that there are many faulty or false beliefs held by perfectly sane persons out of which such persons can not be reasoned, but which are not insane delusions, defines the much-defined term as "*A faulty belief concerning a subject capable of physical demonstration, out of which the person can not be reasoned by adequate methods for the time being.*" The italicized words indicate Prof. Wood's addition to Dr. Spitzka's definition, which, thus modified, meets the exigencies of the case better, we think, than any definition we have seen.

He has a word to say on the absurdities of nomenclature to which imperative conceptions and morbid fears have given rise—gynæphobia, monophobia, pathophobia, &c. And we are not

surprised that the author's common sense is affronted by the misleading manias that have been tacked on to roots indicative of various morbid impulses. "Unfortunately, the nomenclature is made still more complicated by the fact that often when the morbid impulse exists in an insanity the name usually applied to the impulse is given to the whole attack. Thus, a melancholia with an impulse to set fire to houses would be called pyromania. Not rarely, indeed, there is not even the excuse of the existence of a morbid impulse for the name given to the disease." In the discussion of the question how much of abnormal mental action is compatible with sanity, we are seasonably reminded that insanity is not a definite disease, but an abnormal state, varying indefinitely in its intensity—separated by no tangible line from sanity—arising from a number of diverse diseases and terminating in most various ways. "It is a mental weakness; and it would be as absurd to ask for a definite line separating the physically weak from the physically strong as to ask for one separating the mentally weak from the mentally strong." These sensible strictures pave the way for the following definition of insanity—probably as good a one as any, and vastly better than the majority, that the "expert can frame to meet the clamor of lawyers:" "Insanity is a condition of mental aberration sufficiently intense to overthrow the normal relations of the individual to his own thoughts and acts, so that he is no longer able to control them through the will." Prof. Wood anticipates the criticism that the will does not all at once lose its grasp on the lower faculties, but that, little by little, these slip from under its control, and that difficulty may thus arise in applying this definition to the individual case. "Of degrees of responsibility none but the All-knowing can judge, and to say with assured correctness just when the lost control has been lost is not given to mortals. In a court of justice it becomes the expert to state as nearly as may be the exact mental condition of the prisoner, leaving to the judge the decision as to the legal responsibility of the prisoner—i. e., the relation of his mental condition to the law of the commonwealth in which the trial is held."

The author holds it to be illogical to consider different forms of insanity as distinct diseases, insanity itself being a symptomatic condition and not a disease. He suggests as the best plan a description of the diseases of the brain and the insanities which accompany them so far as we know such diseases, and, in default of such knowledge, to describe forms of insanity not as diseases but as symptom-groups. He takes decided exception to writing about

symptom-groups, such as melancholia, mania, &c., as though they had equivalent force to typhoid fever or scarlatina, whereas, they are in fact of the same rank as diarrhœa or paralysis. He cites several facts in support of this position, e. g., that similar mental symptoms may be produced by various organic brain diseases; that almost any form of insanity may exist without demonstrable organic lesion; that antagonistic forms of insanity may be produced by lesions which are, so far as we can perceive, identical; that the form of insanity may change in the individual without appreciable cause and without conceivable change of disease; that almost every grade of case exists in nature, uniting by an unbroken series the various insane symptom-groups. In fine, he holds that at present we can not connect cerebral lesion and mental symptoms in their causal relations. He refers also to the rapid recoveries which sometimes occur in apparently hopeless cases of insanity as showing that the symptoms can not depend upon alterations of the brain-substance sufficiently gross to be detected by our present methods. Such cases doubtless occur, though we venture a suspicion as to the case cited of his patient who, having "been buried for fifteen years had emerged in one night without even the grave-clothes about her," is alleged to have remained well one week, to have relapsed, got well again for three or four days, to relapse again, and so on for several consecutive months—we doubt if this woman was ever at any time "perfectly sane" after the first attack as the author alleges. Be this as it may, we must share the author's view as to the apparently wide independence of structure and function and his consequent despair that we shall ever be able to say why, in some cases, "waves of emotional and mental paralysis sweep over the individual." Yet we regret that Prof. Wood has thought fit to show that despair in the following bit of infelicitous pessimism: "The microscope is a coarse blundering tool, powerless to reveal the ultimate changes of nervous protoplasm gone mad." Even conceding the truth of this assertion the chances of revelation would surely be increased by freer use of the tool, blundering though it be. The zeal of asylum physicians in the direction of pathology is not so conspicuous that it can afford to be discouraged by opinions disparaging to microscopic science and but too many of us might be tempted to attach to this sentence a wider significance than the author intended.

On the subject of classification Prof. Wood takes the ground that none as yet made, or as yet possible to be made, is scien-

tifically accurate, and inclines to the belief that if it were once generally acknowledged that almost all of these forms of insanity in nature shade into one another, and that the separations are arbitrary, the simplest arrangement would become popular because the most convenient. In this volume insanities are grouped conveniently and discussed under the heads—I. Complicating insanities; II. Constitutional insanities; III. Pure insanities.

But we can not follow the author further, and in dismissing his excellent work, from which, it may be, we have quoted too liberally, it only remains for us to commend it to our readers as the honest effort of one who never writes without teaching and who always writes and teaches well.

The Nursing and Care of the Nervous and the Insane. By CHARLES K. MILLS, M. D., Professor of Diseases of the Mind and Nervous System in the Philadelphia Polyclinic, &c. Philadelphia: J. B. Lippincott Company, 1887.

This neat little hand-book of 140 pages forms part of the publishers' series of Practical Lessons in Nursing. Until its appearance we were without a manual on the nursing of patients suffering from either functional or organic nervous trouble, not forms of insanity, and we are indebted to Professor Mills for supplying the want. The first chapter is devoted to a discussion of the qualities essential in a good nurse for nervous patients, the general management of hysteria, epileptic seizures, &c. In the second chapter the student is instructed as to massage, including the philological intricacies of the French infinitive *masser* and the Franco-English past participle derived therefrom. Proper instruction in both is opportune in these days of pretentious rubbing and conjugation. The reader is thus gradually prepared for the third chapter which deals with electricity, its various forms, and methods of application.

The *milliampèremètre* is pictured and described, and its uses are explained. In fact, nothing pertaining to the nursing and care of nervous invalids appears to be omitted. In the final chapter on the nursing and care of the insane, the author has been forestalled by recent hand-books to which suitable acknowledgment is made. Among much that is necessarily commonplace there is sound advice for the attendant, and we have no doubt the book, which bears evidence of having been carefully prepared by an experienced teacher, will be found useful as an adjunct to practical instruction in hospital wards. All asylum physicians would do well to provide themselves with a copy.

A Treatise on Diphtheria, Historically and Practically Considered, including Croup, Tracheotomy and Intubation. By A. SANNE. Translated and Annotated by H. Z. GILL, A. M., M. D., LL. D. St. Louis: J. H. Chambers & Co., 1887.

We are indebted to Dr. Gill for this admirable translation and annotation of Dr. Sanné's treatise. A special feature of the work is the discussion of tracheotomy, an operation that the text-books on general surgery usually dismiss with inadequate mention. Numerous illustrations are given showing abnormal relations of the innominate and carotid arteries—departure from the normal arrangement in some instances so great that the operation of tracheotomy would be extremely hazardous if not immediately fatal.

The sections devoted to the ætiology, pathology and clinical history of the diseases under consideration leave little to be desired. As regards medicinal treatment, the author believes that "no specific remedy for diphtheria has yet been discovered." Energetic measures are decried. The free use of alcohol together with the administration of the perchloride of iron, and a liberal diet, are held to be the most powerful restoratives consistent with safety. Locally only the mildest applications are to be made and there is none better than aqua calcis.

The volume concludes with a description of intubation as practiced by Dr. Joseph O'Dwyer and is illustrated by several cuts of the instruments used.

ASYLUM REPORTS.*

CONNECTICUT:

Report of the Retreat for the Insane at Hartford for the year 1886. HENRY P. STEARNS, M. D., Superintendent.

Number at beginning of the year, 134. Admitted, 80. Discharged recovered, 28; much improved, 6; improved, 8; stationary, 20; died, 19. Remaining, 133.

DAKOTA:

Report of the North Dakota Hospital for the Insane at Jamestown for the years 1885 and 1886. O. WELLINGTON ARCHIBALD, M. D., Superintendent.

Number admitted, 176. Discharged recovered, 27; much improved, 4; improved, 2; escaped, 1; died, 6. Remaining, 136.

DISTRICT OF COLUMBIA:

Report of the Government Hospital for the Insane at Washington for the year 1886. W. W. GODDING, M. D., Superintendent.

In the asylum June 30, 1885, 1,221. Admitted, 303. Discharged recovered, 77; improved, 73; unimproved, 5; died, 102. Remaining, June 30, 1886, 1,267.

GEORGIA:

Report of the Lunatic Asylum of the State of Georgia at Milledgeville, for the year ending October 1, 1886. Dr. T. O. POWELL, Superintendent.

In asylum October 1, 1885, 1,237. Admitted, 391. Discharged restored, 128; improved, 13; unimproved, 124; eloped, 2; died, 123. Remaining, 1,238.

ILLINOIS:

Report of the Illinois Southern Hospital for the Insane at Anna. H. WARDNER, M. D., Medical Superintendent.

In hospital October 1, 1885, 637. Admitted, 172. Discharged recovered, 56; much improved, 27; improved, 21; not improved, 44; died, 27. Remaining October 1, 1886, 634.

* See Note page 144.

Report of the Illinois Eastern Hospital for the Insane at Kankakee.
RICHARD DEWEY, M. D., Medical Superintendent.

In hospital October 1, 1885, 1,428. Admitted, 326. Discharged recovered, 60; much improved, 26; improved, 41; stationary, 66; died, 24. Remaining October 1, 1886, 1,515.

Report of the Illinois Central Hospital for the Insane at Jacksonville. HENRY F. CARRIEL, M. D., Medical Superintendent.

In hospital September 30, 1884, 633. Admitted since, 1,337. Discharged during year 1886, recovered, 80; improved, 66; unimproved, 6; escaped, 5; died, 47. Remaining September 30, 1886, 926.

Report of the Illinois Northern Hospital for the Insane at Elgin. EDWIN A. KILBOURNE, M. D., Medical Superintendent.

In hospital October 1, 1885, 523. Admissions, 122. Discharged recovered, 32; much improved, 20; improved, 20; stationary, 25; died, 17. Remaining October 1, 1886, 539.

IOWA:

Report of the Iowa Hospital for the Insane at Independence for the period ending June 30, 1885. GERSHOM H. HILL, M. D., Superintendent.

In the hospital June 30, 1884, 597. Admitted, 341. Discharged recovered, 40; improved, 78; unimproved, 67; died, 59. Remaining in the hospital June 30, 1885, 694.

KENTUCKY:

Report of the Central Kentucky Lunatic Asylum at Anchorage for the year ending November 1, 1886. H. K. PUSEY, M. D., Superintendent.

Number in asylum October 31, 1885, 658. Admitted since, 210. Discharged recovered, 66; removed, 9; eloped, 5; not insane, 2; on probation, 2; died, 71. Remaining in asylum November 1, 1886, 713.

MASSACHUSETTS:

Report of the Boston Lunatic Hospital for the year ending December 31, 1886. THEO. W. FISHER, M. D., Superintendent.

Number in hospital December 31, 1885, 229. Admitted, 118. Discharged recovered, 29; much improved, 5; improved, 7; unimproved, 6; transferred, 31; died, 38. Remaining December 31, 1886, 231.

Report of the Massachusetts School for the Feeble-Minded at South Boston for the year ending September 30, 1886. ASBURY G. SMITH, M. D., Superintendent.

Number in school September 30, 1885, 140. Admitted, 41. Discharged improved, 12; removed by parents because ill, 2; sent to other institutions, 6; removed by the State Board of Health, 1; removed by Overseer of Poor, 1; unimprovable, 2; died, 6. Remaining, 151.

Report of the Northampton Lunatic Hospital for the year ending September 30, 1886. EDWARD B. NIMS, M. D., Superintendent.

Number in hospital October 1, 1885, 476. Admitted, 183. Discharged recovered, 29; much improved, 10; improved, 59; unimproved, 43; not insane, 1; died, 26. Remaining September 30, 1886, 491.

Report of the Temporary Asylum for the Chronic Insane at Worcester for the year ending September 30, 1886. HOSEA M. QUINBY, M. D., Superintendent.

In the asylum, October 1, 1885, 405. Admitted, 71. Discharged recovered, 1; improved, 4; unimproved, 35; died, 38. Remaining in asylum September 30, 1886, 398.

Report of the Worcester Lunatic Hospital for the year ending September 30, 1886. JOHN G. PARK, M. D., Superintendent.

In the hospital, September 30, 1885, 786. Admitted, 323. Discharged recovered, 65; much improved, 46; improved, 67; unimproved, 126; died, 47. Remaining September 30, 1886, 758.

MAINE :

Report of the Maine Insane Hospital at Augusta, for the year ending November 30, 1886. BIGELOW T. SANBORN, M. D., Superintendent.

Number in hospital December 1, 1885, 486. Admitted, 231. Discharged recovered, 66; much improved, 34; improved, 22; unimproved, 6; not insane, 1; died, 60. Remaining November 30, 1886, 528.

MARYLAND:

Report of the Mount Hope Retreat, Baltimore, for the year 1886. WILLIAM H. STOKES, M. D., Attending Physician.

In the institution on the first of January, 1886, 483. Admitted during the year ending January 1, 1887, 225; discharged cured,

118; much improved, 32; improved, 11; unimproved, 6; died, 57. Remaining January 1, 1887, 484.

MICHIGAN:

First Report of the Northern Michigan Asylum at Traverse City for the year ending September 30, 1886. JAMES D. MUNSON, M. D., Superintendent.

Number admitted during the year, 492. Discharged recovered, 18; improved, 21; unimproved, 4; died, 20. Remaining September 30, 1886, 429.

NEW JERSEY:

Report of the New Jersey State Lunatic Asylum at Trenton for the year ending October 31, 1886. JOHN W. WARD, M. D., Superintendent.

Number in asylum October 31, 1885, 646. Admitted since, 185. Discharged recovered, 58; improved, 23; unimproved, 8; not insane, 2; died, 49. Remaining, 691.

Report of the Essex County Asylum for the Insane at Newark for the year ending April 30, 1887. LIVINGSTON S. HINCKLEY, M. D., Superintendent.

Number of patients in the asylum May 1, 1886, 344. Admitted, 120. Discharged recovered, 31; improved, 20; unimproved, 5; not insane, 1; died, 24. Remaining April 30, 1887, 383.

Report of the State Asylum for the Insane at Morristown for the year ending October 31, 1886. E. C. BOOTH, M. D., Medical Director.

Number in the asylum November 1, 1885, 829. Admitted, 199. Discharged recovered, 40; much improved, 20; improved, 17; unimproved, 19; inebriates, 5; opium habitues, 2; died, 60. Remaining October 31, 1886, 856.

NEVADA:

Report of the Nevada Insane Asylum at Carson City, for 1885-1886. S. BISHOP, M. D., Superintendent.

Number in asylum January 1, 1885, 160. Admitted, 55. Discharged recovered, 22; much improved, 1; improved, 2; unimproved, 2; eloped, 3; died, 24. Remaining, 161.

NEW YORK :

Report of Brigham Hall at Canandaigua, for the year 1886. D. R. BURRELL, M. D., Resident Physician.

Number in hospital at the beginning of the year 1886, 64. Admitted, 31. Discharged 29; died, 4. Remaining, 62.

NORTH CAROLINA :

Report of the Western North Carolina Insane Asylum at Morganton for year 1885-86. P. L. MURPHY, M. D., Superintendent.

Number in the asylum November 30, 1885, 193. Admitted, 174. Discharged recovered, 39; improved, 4; unimproved, 2; not insane, 1; died, 14. Remaining November 30, 1886, 307.

OHIO :

Report of the Columbus Asylum for the Insane at Columbus for the year 1886. C. M. FINCH, M. D., Superintendent.

In asylum November 15, 1885, 889. Admitted, 291. Discharged recovered, 133; improved, 26; unimproved, 71; died, 46. Remaining, 904.

Report of the Dayton Asylum for the Insane at Dayton for the year 1886. C. W. KING, M. D., Superintendent.

In asylum November 15, 1885, 605. Admitted, 196. Discharged recovered, 74; improved, 39; unimproved, 59; not insane, 1; died, 36. Remaining, 592.

Report of the Longview Asylum at Carthage for the year 1886. C. A. MILLER, M. D., Superintendent.

Number in the asylum November 1, 1885, 688. Admitted, 244. Discharged recovered, 65; improved, 37; unimproved, 27; not insane, 4; eloped, 8; died, 57. Remaining 734.

OREGON :

Report of the Oregon State Insane Asylum at Salem, for two years ending November 30, 1886. S. E. JOSEPHI, M. D., Superintendent.

Number in hospital December 1, 1884, 368. Admitted since, 366. Discharged recovered, 75; improved, 103; unimproved, 44; not insane, 2; escaped, 7; died, 66. Remaining, 437.

PENNSYLVANIA:

Report of the State Hospital for the Insane for the S. E. District of Pennsylvania at Norristown, for the year ending September 30, 1886. ROBERT H. CHASE, A. M., M. D., Resident Physician, Department for Men. ALICE BENNETT, M. D., Ph. D., Resident Physician, Department for Women.

In hospital September 30, 1885, 1,420. Admitted, 427. Discharged recovered, 105; much improved, 28; improved, 75; unimproved, 16; died, 127. Remaining September 30, 1886, 1,496.

Report of the State Hospital for the Insane at Danville, year ending September 30, 1886. S. S. SCHULTZ, M. D., Superintendent.

Number at beginning of year, 746. Admitted, 250. Discharged restored, 40; improved, 36; stationary, 25; not insane, 1; died, 49. Remaining, 846.

Annual Report of the Pennsylvania Hospital for the Insane, Philadelphia. JOHN B. CHAPIN, M. D., Superintendent.

Number in hospital April 4, 1886, 378. Admitted, 191. Discharged recovered, 40; much improved, 25; improved, 25; stationary, 28; died, 27. Remaining, 410.

Annual Report of the State Hospital for the Insane at Warren, for the year ending November 30, 1886. JOHN CURWEN, M. D., Superintendent.

Number in hospital at the beginning of the year, 623. Admitted, 219. Discharged restored, 44; improved, 61; stationary, 14; died, 65. Remaining, 658.

Report of the State Lunatic Hospital at Harrisburg, year ending September 30, 1886. J. Z. GERHARD, M. D., Superintendent.

Number in hospital at the beginning of the year, 430. Admitted, 145. Discharged recovered, 20; improved, 20; unimproved, 24; died, 50. Remaining, 461.

Report of the Friends' Asylum for the Insane at Philadelphia, for the year 1886. JOHN C. HALL, M. D., Superintendent.

In asylum at the beginning of the year, 111. Admitted, 27. Discharged restored, 13; much improved, 2; improved, 9; stationary, 5. Died, 7. Remaining, 102.

RHODE ISLAND:

Report of the Butler Hospital for the Insane at Providence. WILLIAM B. GOLDSMITH, M. D., Superintendent.

In hospital at the beginning of the year 1886, 186. Admitted, 85. Discharged recovered, 21; improved, 22; unimproved, 47; died, 13. Remaining, 168.

TENNESSEE:

Report of the Tennessee Hospital for the Insane near Nashville for the years 1885 and 1886. JOHN H. CALLENDER, M. D., Superintendent.

Number in the hospital December 19, 1884, 412. Admitted during the period, 282. Discharged recovered, 75; improved, 37; unimproved, 16; eloped, 8; died, 57; removed to East Tennessee Hospital for insane, 99. Remaining December 19, 1886, 402.

TEXAS:

Report of the North Texas Lunatic Asylum at Terrell for the year ending October 31, 1886. D. R. WALLACE, M. D., Superintendent.

Number in asylum October 31, 1885, 112. Admitted, 330. Discharged restored, 119; improved, 9; unimproved, 8; not insane, 1; eloped, 1; died, 37. Remaining, 267.

VERMONT:

Report of the Vermont Asylum for the Insane at Brattleboro for the two years ending July 31, 1886. JOSEPH DRAPER, M. D., Superintendent.

Number in asylum July 31, 1884, 437. Admitted since, 184. Discharged recovered, 44; improved, 36; unimproved, 20; died, 71. Remaining August 1, 1886, 450.

VIRGINIA:

Report of the Central Lunatic Asylum at Petersburg for the year 1885-6. RANDOLPH BARKSDALE, M. D., Superintendent.

Number in the asylum at the beginning of the year, 408. Admitted, 121. Discharged recovered, 56; improved, 11; died, 24. Remaining, 436.

Report of the Eastern Lunatic Asylum of the State of Virginia at Williamsburg for the year ending September 30, 1886. JAMES D. MONCURE, M. D., Superintendent.

Number in asylum at the beginning of the year, 416. Admitted, 58. Discharged, 26; improved, 5; [unimproved, 1; not insane, 3; eloped, 1; died, 36. Remaining, 402.

WEST VIRGINIA :

Report of the West Virginia Hospital for the Insane at Weston for the year ending September 30, 1886. W. J. BLAND, M. D., Superintendent.

Number in the hospital, September 30, 1885, 684. Admitted, 104. Discharged cured, 43; improved, 10; unimproved, 5; eloped, 4; died, 50. Remaining September 30, 1886, 676.

WISCONSIN :

Report of the Wisconsin State Hospital for the Insane at Mendota for the year ending September 30, 1886. S. B. BUCKMASTER, M. D., Superintendent.

In hospital, September 30, 1885, 509. Admitted, 247. Discharged recovered, 74; improved, 44; unimproved, 70; died, 37. Remaining September 30, 1886, 531.

Report of the Northern Hospital for the Insane near Oshkosh for the two years ending September 30, 1886. R. M. WIGGINTON, M. D., Superintendent.

Number in hospital September 30, 1884, 614. Admitted during the period, 644. Discharged recovered, 151; improved, 299; unimproved, 49; died, 90. Remaining under treatment September 30, 1886, 669.

Report of the Milwaukee Asylum for the Insane for the year ending September 30, 1886. A. J. HARE, M. D., Superintendent.

In asylum, September 30, 1885, 294. Admitted, 120. Discharged recovered, 43; improved, 41; unimproved, 24; died, 19. Remaining September 30, 1886, 325.

CANADA :

Report of the Provincial Lunatic Asylum at St. John, N. B., for the year 1886. JAMES T. STEEVES, M. D., Medical Superintendent.

Number at beginning of year, 405. Admitted, 151. Discharged recovered, 57; improved, 18; unimproved, 9; died, 37. Remaining, 435.

Report of the Nova Scotia Hospital for Insane, Halifax, N. S., for the year 1886. ALEX. P. REID, M. D., L. R. C. S., Medical Superintendent.

Number, December 31, 1885, 419. Admitted, 114; discharged recovered, 54; improved, 45; unimproved, 8; died, 30. Remaining December 31, 1886, 396.

Report of the Prince Edward Island Hospital for the Insane, Charlottetown, P. E. I., for the year 1886. EDWARD S. BLANCHARD, M. D., Medical Superintendent.

In the asylum January 1, 1886, 115. Admitted, 46; discharged recovered, 22; relieved, 3; not improved, 3; died, 11. Remaining, 122.

NOTE.—So many asylum reports remained on hand unreviewed that the editors experienced the unpleasant necessity of a summary method of notice in the current issue. Yet there are other reasons that make such brief notice fitting. Asylum reports are necessarily of uneven interest, and asylum superintendents are in varying degree vulnerable, both as to reports and individual disposition. To criticise adversely is often to incur displeasure, to give unstinted praise is to excite envy and lead to aspersion of editorial motive, while to omit all reference to reports received, is, we have long since discovered, not good policy. Neither is it always discreet that asylum physicians, occupants, all of us, of vitreous mansions with *some* broken or breakable windows, should throw missiles unless thoroughly satisfied as to the transparency and strength of existing home material. Who, indeed, shall cast the first stone? On the whole then this present method has compensating advantages, and in any case *Ne quid nimis* is always a good motto in literary work.

FOREIGN CORRESPONDENCE.

THE SCHOOLS OF THE RICHMOND DISTRICT LUNATIC ASYLUM, DUBLIN.—At the risk of rehearsing something already stale to the readers of the JOURNAL, I am tempted to give them my experiences in the schools of the above institution, which were so creditably maintained by the late Dr. Lalor, and which doubtless still sustain undiminished efficiency under the cordial encouragement of Dr. Connolly Norman, his gentlemanly and intelligent successor.

The institution is situated in the suburbs of the city of Dublin, and is surrounded by a high stone wall. On account of its location in the midst of a city of this size this is doubtless a necessity, and on this island of Ireland, where everything is walled in and where every gentleman's private residence is shut in by a high stone barricade, the moral effect upon the patients does not seem to be at all injurious. The interior is rather pleasantly arranged, the buildings for patients being in about five blocks, most of which are surrounded by large and neatly kept exercise grounds. Two of the blocks are devoted to males and three to females. Of the former, one contains the epileptics and hospital cases, and the other the suicidal and general classes of able-bodied patients. Of those devoted to females two contain the epileptics and hospital cases, and the other the suicidal and general classes.

The two buildings for the latter patients of both sexes are much larger than the others and consist in brief of a general dining-hall in each, large dormitories containing about eighty-five or ninety beds in each, and of which there are three or four in each building, and about four commodious day-rooms. There is but one single room in both buildings, and for the whole 1,125 patients not over twenty single rooms are in use as such. In the older buildings there are several more, but they have either had the doors removed, or are left unlocked at night. The superintendent is opposed to single rooms altogether and desires to abolish those. The authorities stated that the patients much preferred the large dormitories to the single rooms, which to an American sounded strange, but was not so strange after an examination of the single rooms, which certainly were not inviting in their absence of furniture in the cheerlessness and darkness of their small and high windows and in their defective ventilation.

The schools are conducted in the day-rooms, and I believe are usually in operation only in the forenoon, the afternoon being devoted to out-door exercise. There are two teachers employed who have a general charge of the schools, but the classes are conducted chiefly by monitors chosen from among the more rational and better educated patients. In each class there were twenty-four to thirty pupils, and they comprised classes in reading, writing, arithmetic, geography, the map of Ireland being the one chiefly employed, with object lessons for the more demented. Among the females there were also singing classes, and I saw some fair attempts at drawing which were executed by the female patients. I have not at hand the statistics showing the total number of patients in the classes, but there were evidently several hundred. Among the more demented patients the attempt to excite interest seemed to meet with but very little success and the responses would be limited to but one or two of the pupils. In others, where unfortunate selections of instructors had been made, the cause would be greatly impeded from this fact, the monitor sometimes doing all the questioning and making all the responses himself in an undertone or in a high key intelligible only to his own intellect. With the more rational class, however, and especially in one instance where the monitor had been a teacher in his palmier days, there seemed to be a general interest taken in the subject matter of the lesson, and the teacher showed considerable tact in engaging the attention of all his class. Sometimes the replies would not be exactly those desired, as in a class in arithmetic where the monitor was attempting to induce a rather loquacious Irishman to reply to the question how many dollars there were in a pound. The reply was "now phat are ye after askin that fur, aren't ye there fur to till us?"

Taken all in all, however, the schools are evidently having a good influence on the institution and aid greatly in maintaining orderly deportment among the patients. As Dr. Norman aptly remarked, it seems to give the patients the "appearance" of being employed, and is certainly better than the dreary squatting in corners or sitting about like wooden images, which is so prevalent in institutions for the insane. And even though the occupation be, as it certainly is, in three-fourths of the cases only the occupation of position, it is an *attempt* to engage the attention of the patient, and may impress him when to all outward appearance the effort is wholly lost. It certainly has a tendency to make him think less of himself and more of things external to his own

entity. The noticeable improvement in education among the patients is of course very slight, if it exists at all, but of this I can not speak, as my investigation was necessarily too hasty to ascertain the facts for myself.

The patients as a class seemed contented and comfortable, and I left after an interesting and pleasant afternoon, feeling that I had been well repaid for my visit, and with an impression that there is "more in it" than there seems to be at first glance.

A. B. RICHARDSON.

DUBLIN, Ireland, June 26, 1887.

FROM OUR REGULAR CORRESPONDENT.

ENGLISH LUNACY ACTS AMENDMENT BILL.—This bill in its third edition has passed the House of Lords and made its first plunge in the Commons. It is what would be considered an improved edition of last year's strangled measure, and putting the most generous interpretation on it, there is not much to be said for or against it. English superintendents will regard it as a necessary evil, and the liberty of the subject asserts itself in many clauses in a variety of ways, sufficient to allay old fears and raise new ones. The proprietors of private asylums considering all the clamor that has been raised against them, have reason to be thankful for the mercies vouchsafed them, and now they can have only one anxiety, and that is to see the measure passed without further alteration and as speedily as possible. Vested interests are respected, but after the passing of the bill no further proprietary licenses will be granted, those already in existence being respected until by death or otherwise they cease to exist. Provision is made for transfer of license where more than one person has had an interest in the license, and various other reasonable modifications of the present law have been introduced.

SUBDIVISION OF SCOTCH LUNACY DISTRICTS.—The new Glasgow asylum for over a thousand patients, which was almost commenced, has raised up such a storm of indignation from various conflicting interests, that a little bill has been introduced in parliament by the Secretary for Scotland to restore to the General Board of Lunacy the powers which it once possessed of subdividing and re-arranging districts. If this bill passes there is a probability that Lanarkshire will have three small asylums instead of one large one. This may seem more in keeping with Scotch custom

in the past, but there are many reasons why it is inadvisable in the case of the Glasgow district to split up into three smaller ones.

SCOTCH PENSIONS.—An attempt has been made to introduce a clause in the Scotch bill already referred to, giving in Scotland the same advantages as to pensions which pertain in England and Ireland. Unfortunately the Secretary for Scotland did not see it in the same light, and would not undertake to endanger the passage of his little bill with such a debatable clause. This is hard for a country which is remarkable for its efficient lunacy administration; but surely an agitation might be raised in some more effective manner than any that has hitherto been adopted.

EDITORIAL NOTES AND COMMENTS.

THE AMERICAN JOURNAL OF INSANITY.—The entrance of the AMERICAN JOURNAL OF INSANITY on its forty-fourth year of publication justifies indulgence in brief retrospect and stock-taking.

Established in 1844 by Dr. A. Brigham, the first Superintendent of the New York State Lunatic Asylum, it has since been uninterruptedly edited at Utica. From the year 1854 to his death last year, Dr. John P. Gray was its responsible editor, since which time the JOURNAL has fallen, *ex officio*, into the hands of the present superintendent and former associate-editor, who is assisted in his editorial labors by the medical staff of the asylum.

In assuming charge we took occasion last January to outline a general policy and invite continuance of support. To our appeal has come a most gratifying response which we now thankfully acknowledge. There has been a gradual increment in the subscription-list and, what is still more pleasing, an abundance of meritorious papers. In fact, so great has been the demand on our space, that we have been obliged in the current issue to inaugurate a new departure by printing in long primer, in lieu of the pica in use for so many years. Notwithstanding this implied addition to available space, it has been necessary to increase the number of pages in this issue. There still remain on hand several manuscripts, publication of which must, we regret, be postponed until October.

For continued assurances of sympathy and promises of continued aid we are profoundly grateful and promise on our part to do the best we can toward furnishing a *quid pro quo*. The JOURNAL will strive to represent the best interests of asylum workers in the United States and Canada, and not only to aid in fostering a medical spirit in hospitals for the insane, but to act through its pages as a bond of union among the members of our specialty.

We take pleasure in announcing that a special effort will be made to publish the proceedings of the Psychological Section of the International Medical Congress in our next issue, and crave in advance the indulgence of subscribers if, for that reason (and like reasons apply to the present issue), the October number makes tardy appearance.

INSANITY AND PUERPERAL CONVULSIONS.—At the last meeting of the New York State Medical Association, discussion was had on the question—In what proportion do the insane in public asylums owe their insanity to puerperal convulsions? Preparatory to discussion we issued from Utica a circular letter of enquiry to all the public asylums in the United States and Canada, response to which elicited the fact that in seventy-one such asylums the medical officers had had experience of insanity following puerperal convulsions in but seven instances. Dr. H. P. Stearns, of the Hartford Retreat, reported one case in one hundred and eighty; Dr. W. D. Granger, of Buffalo, and Dr. Jno. C. Hall, of Frankford, Pa., each one case; Dr. C. B. Burr, of Pontiac, Mich., four cases in ninety-seven; Dr. J. W. Ward, of Trenton, N. J., three cases in ten years; Dr. J. H. Callender, of Nashville, Tenn., had frequently received cases where puerperal convulsions were noted, while Dr. Clark, of Toronto, could remember a few cases. At Utica, of eighty cases of insanity attributable to the puerperal state during a period of six years, but four had, so far as ascertainable, had convulsions.

It would seem from a consideration of these data, if one may except the experience of the Nashville Asylum, that there is no sufficient warrant for supposing a definite relationship of cause and effect between puerperal convulsions and insanity. Our own belief is that the causes are multiple. We are led to share with Dr. Macleod, of the East Riding Asylum, the opinion that, on the face of it, convulsions indicate toxæmia affecting the higher nerve centres seriously, and inducing a state that would predispose to insanity. The fact that eclampsia is a disease very fatal to parturient women may have had much to do with the rarity in asylums of cases of insanity from this cause. The relationship is not discussed by recent systematic writers on insanity, though Dr. Savage calls attention to the rarity of eclampsia as an antecedent condition in mental cases connected with the puerperium. May it not be that in cases related by less modern writers the lancet was responsible for the mental disturbance? Two cases of puerperal convulsions treated by blood-letting, in which insanity supervened, are referred to by Drs. Bucknill and Tuke, and all authors bear testimony to the important part played by anæmia as a factor in the causation of puerperal madness. Severe post-partum hemorrhage had occurred in at least ten out of sixty of Clouston's puerperal cases.

We take occasion to acknowledge the courteous co-operation

of asylum physicians in this enquiry, and to Dr. T. Duncan Greenlees, of the City of London Asylum, we are especially indebted for bibliographical data.

THE ANNUAL MEETING OF THE ASSOCIATION.—Of the forty-first annual meeting of the Association at Detroit, it may be safely asserted that the pleasant expectations raised of it at Lexington last year were realized to the fullest extent.

The rank of the Michigan asylums, and the high character of the trustees and superintendents responsible for the invitation to Detroit, were a guarantee that acceptance would not be regretted. The members present exceeded in number the attendance at any previous meeting save one, and the papers excelled in scientific interest and importance besides numerically.

The committee of arrangements showed untiring zeal. The municipal authorities extended to the Association a cordial reception, and nothing could have been more sincere than the welcome of the local profession. The social features of the meeting were thoroughly enjoyed,—the excursion to Rushmere with the accompaniment of flowery and witty speeches by the rhetoricians of the party and the hospitable reception at the residence of General Alger. Neither must we omit reference to Messrs. Parke, Davis & Co., the world-famous manufacturing druggists, whose extensive enterprise it was our privilege to inspect, and whose heavily laden banquet-table contributed in no small measure to our general well-being.

The Detroit meeting will, we feel sure, remain long as a fragrant memory and do much to promote and sustain the scientific ardor of the Association and foster a feeling of professional brotherhood among its members. It was an unqualified success.

MENS SANA IN CORPORE SANO.—An experimental class in physical culture has been conducted with gratifying results at the State Reformatory, Elmira, N. Y., under the supervision of Dr. H. D. Wey. The object in view was to determine the value of physical culture as a factor in intellectual and moral training. The men selected were eleven in number, the dullards of the institution, incapable of prolonged mental effort, lacking in self-confidence, perseverance, and the power to grasp even the simplest facts. The course consisted of Turkish baths, massage, a severe course of calisthenics, with special and restricted dietary. Within six months the stride made in moral and intellectual development

is said to have been "enormous." The marking of the class rose from an average of 46 per cent to 70. No lapsing into their former inertia has been noticed since the athletic exercises were discontinued.

In a letter to "Science," June, 17, 1887, Dr. Wey says:

"I do not think the improved mental condition of these men can be attributed to other than the strengthening of the brain-centres by the cultivation and development of muscle and muscles under the control of these same nervous centres, the one participating and taking part in the improvement of the other. From the words of commendation I have received, and noting the progress of the men under conditions that once seemed to promise so little to them by reason of their stupidity and obtuseness, I regard my class in physical culture as more than an experiment,—a success,—as showing that something more than mere brawn can be accomplished by muscular exercise when properly selected, guided, and governed."

Query: Is the experiment not worth trying in hospitals for the insane?

INTERNATIONAL CONGRESS ON INEBRIETY.—The Council of the English Society for the Study and Cure of Inebriety, have completed arrangements for an International Medical Congress, to be held at Westminster Hall, London, July 5th and 6th, 1887. The object of this Congress is to present and discuss the problems of inebriety from a purely scientific standpoint, thus laying the foundation for a broader and more exact study of this subject.

Papers and addresses are promised from a large number of the distinguished physicians.

Dr. T. D. Crothers, of Hartford, Conn., is Chairman of the American Committee.

BOVINE TUBERCULOSIS.—Dr. M. D. Blaine, of the Willard Asylum Staff, has made valuable enquiry into the communicability by ingestion, inhalation and hereditary transmission of bovine tuberculosis, as well as its dangers to the public health. He has reached the following conclusions as to ætiology:

1. In the bovine species, the disease is inherited either from male or female.

2. Tuberculosis is acquired by the inhalation of tuberculous substances.

3. Tuberculosis is acquired by the ingestion of milk of tuber-

culous cows, when the disease has reached the stage of suppuration, or when there is a tuberculous affection of the milk-bag.

4. The disease may also be acquired by the ingestion of the flesh of tuberculous animals.

INSANITY IN IDAHO.—We take the liberty of extracting the following interesting comment from a private letter from Dr. John W. Givens, the recently appointed superintendent of the new asylum at Blackfoot, Idaho.

"I resigned my position in the Oregon Insane Asylum last November to accept the medical superintendency of this. It is very novel to me to be in an asylum here, where a few years ago when I crossed the plains with ox-teams there was not a home of a white man for many hundred miles in any direction. But insanity seems to travel so closely upon the heels of civilization that here it has preceded civilization, for the wild raving and melancholy moan of the insane are heard upon the barren plain before the home of the white man is fairly commenced.

I think you told me you once made a tour through Texas, and if you can recall the conditions upon the barren plains of Western Texas, you will have a fair idea of ours, except that our landscape is surrounded by mountains, many of them snow-capped the year through, which gives a picturesqueness not found on the monotonous plain.

Our asylum is small and poorly equipped, but as we are taught not to despise the day of small beginnings, we do not despair."

NINTH INTERNATIONAL MEDICAL CONGRESS.—The Section in Psychological Medicine and Nervous Diseases bids fair to be a great success. It is hoped that all asylum physicians will make an effort to be present. The privilege of meeting face to face distinguished physicians from all parts of the civilized world would of itself justify long journeys, to say nothing of the scientific interest that the discussions promise.

It is proposed to give one of the sessions to a discussion on Syphilis and its relation to Insanity.

The discussion will be opened by Dr. George H. Savage, Bethlem Royal Hospital, London, England, and will embrace the following divisions:

1. Idiocy, imbecility, moral perversions due to inherited Syphilis.

2. Insanity associated with Acute Syphilis, (*A*) Physical, (*B*) Moral.

3. Syphilis producing Epilepsy, with or without Insanity.
4. Syphilis producing Mental weakness, (A) with, (B) without Paralysis.
5. Syphilis as associated with general paralysis of the insane.
6. Pathology, as represented by coarse changes like gummata, or slighter ones as seen in Arterial disease.

Several of our English confrères have already arranged to take part in the above.

Those who intend to engage in the discussion of one or more of the above "questions" should send notice to Dr. E. D. Ferguson, Troy, N. Y. The time allowed for each paper in discussion is ten minutes. Tabular and bibliographical material can appear in the printed paper, but it is respectfully suggested that the matter prepared for reading be as illustrative and pointed as possible. Clinical observations, post-mortem appearances and conclusions will be specially applicable. Papers relating to Syphilis and Nervous Diseases will also be read during the same session.

We take pleasure in announcing in connection with the above, that a large and capable staff of medically educated stenographic reporters, under the supervision of a responsible chief, will be in attendance, in the interests of "The Medical Record." They will prepare a condensed report each day of the proceedings of the general sessions and various sections, which will each day be telegraphed to the publication office of "The Medical Record," in New York, and be immediately prepared by the editorial staff for publication in its current issues. Messrs. William Wood & Company realizing the importance of the occasion, and the interest its proceedings will excite on the part of the medical press throughout the world, have generously arranged that the matter pertaining to the Congress, as prepared for the columns of their enterprising publication, shall be immediately translated, and in the form of printed slips, in the English, French or German language, sent free of all charge, upon application, to any medical journal in the world.

The AMERICAN JOURNAL OF INSANITY hopes to have its own stenographic reporter in attendance at the sessions of the Psychological Section.

APPOINTMENTS AND RESIGNATIONS:

Wisconsin.—Walter Kempster, M. D., has been re-appointed Superintendent of the Northern Hospital for the Insane, Winnebago, *vice* R. M. Wiggington, M. D., who had held the position since July, 1884.

New Jersey.—Andrew McFarlane, M. D., Albany Medical College, 1887, has been appointed, after competitive examination, Assistant Physician at the State Asylum for the Insane, Morris Plains, *vice* Dr. Rushmore resigned.

Idaho.—John W. Givens, M. D., formerly Assistant Physician at the Oregon Insane Asylum, Salem, has been appointed Superintendent of the new Idaho Insane Asylum at Blackfoot.

Canada.—We regret to learn that J. M. Wallace, M. D., Superintendent of the Hamilton Asylum, Ontario, has been obliged to resign on account of ill health.

OBITUARY.

JAMES STEWART JEWELL, M. D.

Dr. Jewell died in Chicago April 18th, 1887. He was born at Galena, Ill., September 8, 1837. He pursued his medical studies in the Chicago Medical College and there graduated in 1860. He subsequently became Professor of Anatomy in that institution, and in 1872 was elected Professor of Nervous and Mental Diseases, in which latter capacity he acted with great acceptance for several years. At the time of his death he was Professor Emeritus.

Dr. Jewell established the Journal of Nervous and Mental Diseases and for a long time was its editor-in-chief. He also took a prominent part in the organization of the American Neurological Association. The latest enterprise of the deceased was "The Neurological Review," a journal which bade fair to succeed when the increasing ill health of the editor caused its suspension.

Dr. Jewell was an active, energetic worker but ambitious beyond his strength. Had he worked as wisely as he worked well, the profession of Chicago might have retained a useful and respected member for many years to come.

—Professor Vulpian, of Paris, the well-known physiologist and neurologist died on the 18th of May last in the sixty-first year of his age.

MISS DOROTHY L. DIX.

This venerable philanthropist and friend of the insane died in the State Asylum at Trenton, N. J., on Monday, June 25, 1887. A notice of her eventful life will appear in our next issue.

AMERICAN JOURNAL OF INSANITY, FOR OCTOBER, 1887.

THE COLONY SYSTEM OF CARING FOR THE INSANE.*

BY GEORGE C. PALMER, M. D.,
Superintendent of the Michigan Asylum for the Insane, Kalamazoo, Mich.

Asylum treatment has been of material aid in restoring patients to health, has rendered the lives of many very comfortable, has relieved the family of the great burden of caring for its insane at home, and in fact is the only system adapted to a large number of mental sufferers; but as a curative measure, simply, it has not fully sustained its early promise.

If one will take the trouble to look up the literature of the subject, it will appear that the profession, in the primitive days of asylums in this country, entertained the belief that seventy or eighty per cent of the insane would recover, if placed early under treatment; indeed, the reports issued in those days go far to establish such gratifying results. As patients are now presented for treatment, not over thirty per cent get well, and but few institutions are able to make even so favorable a showing. It may be interesting to study some of the causes that have led to these results.

The many large modern asylums that have been constructed, certainly show great improvement in the accommodations and appliances provided, and no one would be willing to attribute the falling off in the number of cures to any lack of medical skill now employed.

It has been suggested that possibly the standard fixed for restoration (which is more or less arbitrary), was not so rigid formerly as now, and that in the early period of asylum treatment, as with new remedies, more hopeful views were entertained of the benefits derived than could be sustained by the test of experience.

Then again in order to awaken proper interest in the treatment

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

of the insane and to secure necessary appropriations to erect large hospitals, it would be natural, in making up tables, to include as many in the list of recoveries as the condition of the patients would warrant, making due allowance for errors in judgment and the individual temperament of the medical observers.

While no doubt the reasons above assigned may serve to account in part for the marked difference in results derived, still, we must look for more potent influences to account intelligently for the great falling off in the number of cures in our asylums.

It is thought that the type of insanity has changed during the last thirty years, owing to the advancement in our civilization; to our intense way of living and application to business; and to greater indulgence in the appetites and passions, giving rise to grave and incurable forms of disease. Within the memory of men living, general paresis was a rare form of disease in our asylums; now it is not only one of the most common, but also the most fatal among male patients which we are called upon to treat.

It should be borne in mind, that at the time State provision was first inaugurated our country was, comparatively speaking, new and undeveloped; that there were no railroads; few large cities; and that the bulk of the population lived in rural districts, and were engaged in agricultural pursuits. The people were simpler in their habits, more robust, and the diseases from which they suffered were more sthenic in character, less complicated and more easily managed. Of the forms of mental disease mania would be the one most likely to develop.

Now there are many large cities and towns that have sprung up with wonderful rapidity; railroads that stretch across the continent, touching every city of importance in the land; telegraph wires that encircle the earth, bringing news in the shortest conceivable space of time; and telephones that make neighbors of people living at long distances from each other. All these wonderful inventions have wrought marvelous changes in our civilization and produced their legitimate results.

Do we wonder that the brain, so delicately organized, should give out prematurely, having been stimulated by such great and rapid transitions, and that in diseased conditions, it should evolve ideas of wealth, of grandeur and of omnipotence?

The large modern cities present unusual attractions and offer great inducements. Young men and women drift to them; soon enter into the activity, the strife, the excitement, and often the allurements and excesses which are there afforded. The change

from country to city life is very great and exhausting ; in many instances the new surroundings are favorable to the development of insanity. Under the circumstances, we should expect that the diseases developed would be more complex and difficult to treat ; and that, instead of simple mania, as was formerly the case, which is most amenable to treatment, we would get paresis, epilepsy, dementia, and various other forms of incurable disease.

But the evil does not stop here. Many victims of our present civilization do not get insane or die early, but live with diseased bodies and impaired minds, marry and become parents of children that may be classified as delicate, consumptives, nervous, epileptics, insane, or of others with defective organizations that tend to increase the number of incurable insane.

I have often been solicited by essayists to furnish statistics, showing the number of patients in the asylum made insane by the use of intoxicating drinks. I could not make a very satisfactory showing from the immediate effects as derived from our table of assigned causes, but the evils that have resulted from the remote effects, in bringing distress to the family, in producing crime, in blasting hopes and early promises, and greatest of all, in deteriorating the race and in filling up our asylums, schools for the feeble-minded, and penitentiaries with its victims, can hardly be over-estimated and, indeed, furnish sufficient material for the essayist and moralist.

The late civil war, no doubt, has contributed towards increasing the number of insane, as well as modifying the type of mental disease. But few were rendered insane by the war that would not have broken down by other exciting causes. A large proportion of the soldiers that served in the war, and lived to return home, were reduced in mental and physical vigor. The disabilities thus acquired have influenced their children, imparting to them a delicacy of organization and susceptibility to external influences, often leading to mental disease. During the past few years several of these children have been admitted into our institution. Thus it will appear that the influence of a great and momentous event, acting upon the past is made potent through laws of transmission to the present generation by producing mental and physical degeneracy.

Seldom do recent cases find their way into asylums, unless the attack be sudden, as in case of mania, and the patient becomes difficult [to care for at home ; at least this is our experience at Kalamazoo. Most of the cases of insanity develop slowly ; often

a period of months and even years of incubation elapses before the border-line, dividing sanity from insanity, is actually crossed. The patient then may be able to exercise a very fair degree of self-control at home, showing more or less irritability and lack of interest in his business, which are attributed to imperfections of character, rather than to the real cause—mental disease. Suddenly, from some trivial circumstance, as attending a series of meetings, or receiving a slight shock to the nervous system, the patient becomes maniacal and difficult to care for, and consequently is at once sent to the asylum. The statement usually made in such cases by the accompanying friends, is that insanity was caused by religious excitement or by the occurrence of some bodily injury, not sufficient to account for the change, and far from the truth. Mental disease had really existed for some time past, and required but little to produce active symptoms. It can hardly be expected that the best results will be derived in the treatment of such cases.

It is believed that early in the history of asylums, insanity was not so fully understood as at the present time, and that many cases of melancholia, dementia, monomania, were not always correctly diagnosed, and that maniacal patients, the most difficult to care for at home, were most frequently sent to the asylum.

Now that greater intelligence exists in regard to all forms of mental disease, with greatly increased accommodations, better facilities for transportation, coupled with the fact that liberal provision has been made by most of the States for their support, it is probable that all forms of disease are placed under treatment, the curable and incurable, and that the ratio of recoveries is consequently diminished, while that of the incurable insane is largely increased.

I have dwelt upon this topic at length, not so much with the view of presenting anything especially new, as to bring before the Association the well-known facts, that incurable insanity in our asylums is on the increase, and that the expense of caring for this great army of helpless beings is becoming yearly more burdensome to the State.

I have often asked myself the question, can anything more be done to prevent the development of insanity, any plan devised or remedies adopted that will further promote restoration; and are we doing all in our power for the incurable class in our institutions, looking to their comfort, improvement in their habits, in mental and physical health, as well as lessening the expense of main-

tenance? Has architecture done its perfect work and have the most appropriate surroundings been selected for this class of patients? These are difficult, but legitimate questions to come before this body.

If steps could be taken to prevent effectually the development of insanity, no further efforts on our part would be required; but the difficulty surrounding this, as well as all social questions, is so great and complex that any attempts made are not likely to meet with immediate results. If insanity could be wiped out of existence to-day, leaving the race healthy, I fancy it would soon reappear in its various forms, so prone is humanity to fall into ways that are calculated to undermine health and lead ultimately to disease.

Our system of education is faulty from the fact that while the mind is thoroughly disciplined often at the expense of the general health, no great attention is given to physical culture, so necessary to the foundation of a vigorous manhood. Little is taught as to the importance of self-control and the evils of self-indulgence. The laws of heredity and the influence they exert for good or evil, and the unhappiness and suffering arising from ill-assorted marriages are entirely overlooked. The young should be instructed as to their growth and development, and the change from childhood to puberty with the effect it has upon the health. The sexual system should be fully explained, that it is the way provided by a wise providence for perpetuating the race and not to be abused or used simply for sensual pleasure, and no longer kept a secret to be ascertained accidentally or by the development of the system which often leads to vicious habits and indulgences. Books should be written, bearing especially on these subjects and be made to form a part of the curriculum of instruction in our schools and colleges. How can these truths be disseminated and be made to bear fruit unless sown in receptive natures, unless impressed upon the minds of the young while in process of education. One might as well attempt to abolish intemperance by prohibitory laws, after the appetite for drink is formed, as to attempt to remove the exciting and predisposing causes of disease in any other way. To be effectual in either case, we must begin our work before the appetites and passions are formed.

The next important consideration is to restore to health if possible, all mental sufferers, but as previously stated, such grand achievement, under existing circumstances, can hardly be realized. No doubt many more would recover if placed under treatment as

soon as morbid cerebral action occurs, without regard to loss of self-control or the need of restraint. The larger number of those admitted into our asylums, however, suffering from paralysis and structural diseases, as well as the defective classes, are not likely to regain a full measure of soundness. If means could be adopted to remove the exciting and remote causes, such as syphilis, sexual and other excesses, and too intense application to business, no doubt many grave forms of mental disease and much suffering would be avoided. It seems to me that our principal efforts lie in this direction; for when the malady is once firmly seated, little benefit is likely to accrue from remedial measures, as serious pathological changes have, in most instances, taken place. Much, however, can be done by establishing regular habits, by a well selected diet, by appropriate remedies and good hygienic surroundings, to make these patients comfortable and to prolong their lives.

I now come to the last and most important inquiry; What, if anything, can be done to improve the condition of the chronic insane, as a class, and to lessen the expense of their maintenance, without reducing essential comforts? The number of this unfortunate class is yearly increasing, it must be admitted, with the best appliances, suitable accommodations and experienced medical skill. This will probably be the case until more effectual remedies are employed with which to prevent and combat the disease. Under the circumstances, shall we continue to use the measures that are now provided and make no further efforts to restore these patients to health, and to further ameliorate their condition; or shall we seek to improve upon our present methods and add to our therapeutical agents with a view of producing better results? While our task is at best difficult and full of discouragements, still, the advancement that is constantly being made in the arts and sciences, stimulate us to think that advancement also can be made in the means employed for the care and treatment of the insane with greater benefit. No one in passing through our asylum wards and witnessing the large number of patients sitting from day to day with nothing to do to relieve the monotony of their lives, or stimulate their minds to greater activity, can for a moment feel that perfection has been reached. It does not satisfy the mind to say that patients have as much liberty, or as many efforts made in their behalf, as their safety and condition will warrant; when recent experience has shown that many are capable of enjoying more liberty, and exercising better self-control

than formerly was thought possible. No patient, however demented he may be, but can be improved by proper and persistent efforts; and it is not only our duty to make such efforts and use such remedies known to us to be salutary in all such cases, but also to be constantly seeking to discover other remedies and measures of greater utility.

Occasionally, a feeble-minded patient gets interested in some light work outside of the ward, and it is interesting to note how much he improves under its stimulating influence. Within a year or two he is able to return home in very comfortable health, and to earn his own support. It is true that this is an exceptional case, but are there not more patients in our wards that, by some wisely conceived plan, could be made to engage in regular and suitable occupation with similar results? I think it is not unreasonable to suppose that such is the case.

It is the opinion of many that one of the greatest evils we have to contend with, is that growing out of imperfect classification. The beneficial effects of careful nursing and remedial and moral treatment, may all be neutralized by the pernicious influence one patient may exert over another. These patients as a rule belong to the chronic class, and are sometimes called "moral pervers." Certainly they have perverted feelings and false conceptions, and are impaired mentally; but they converse rationally and connectedly, and show considerable intelligence and plausibility, making them capable of doing great harm to many susceptible patients with whom they come in contact. It is often difficult to place these perverted beings where they will not exert a deleterious influence.

A large number of patients with weak minds and careless habits do each other harm in cultivating and fostering slovenly and degrading practices.

It is known that one nervous person may exert an influence over another of like temperament, by producing similar morbid manifestations. Furthermore, it is thought that mental disease is communicable. Persons, as husband and wife, or sisters having similar organizations, exposed to the same unhealthy influence, sometimes become insane through sympathy. In a few hours after the disease has developed in one, it is noticed in the other, when living together, or even separated, provided a close intimacy is kept up. If persons are affected through sympathy living apart, how much more should we expect them to be influenced, associated on the same hall; hence the importance of having a great number of classifications.

In a few States provision has been made for the chronic insane in separate and cheaper structures, patterned after regular asylums, or in villages, as may be seen at Kankakee and Toledo, where all, after the disease has progressed a certain length of time, are cared for. While in other States the excess of patients has been provided for in detached buildings erected near the main asylum, thus preserving the same standard of care and treatment, as well as the same management for all patients.

In Michigan the policy has been hitherto to provide for all the insane, the curable and incurable, in institutions similar in grade to those now established; but the increase of insanity has been so rapid of late years, owing in part to the development of the State and increase of its population, and the burden to make such provision is so great that for the present, at least, it has been abandoned, and a less expensive plan, known as the "Colony System" substituted.

What is understood by the "Colony System?" The definition of the word colony is, a company of people transplanted from their mother country to a remote province or country and remaining subject to the jurisdiction of the parent State. Preserving the analogy, the colony system means, a company of patients transplanted from the parent institution to a settlement specially prepared for them, remaining dependent upon the parent institution for its support and management.

To establish this system, a large tract of farming land is desirable, a portion of which should be elevated and dry for building purposes. On this tract of land colony houses can be erected, built plainly but tastefully of brick at an expense of \$8,000 with capacity for thirty patients. I have fixed the number at thirty, as that is about as many as can live comfortably in one house and be subjected to the same management. More would necessitate two classifications; besides, the idea of a home, one of the features of the colony system, would be destroyed and that of the asylum preserved.

After the colony has been sufficiently developed to justify it, a resident physician should be located there, have his office connected with each colony house and the asylum proper by means of telephones, so that the business of the institution can be conducted at the central office. The land should be divided into farms, one to be devoted to raising stock, one to growing fruits and vegetables, one to keeping cows for milk, and making butter, as the condition of the soil and climate and the needs of the institution may indicate.

In this connection several important questions arise worthy of consideration. First, as to the number of patients that can properly be placed under one management. The opinion formerly entertained was that three hundred and fifty patients were as many as should be in one institution, but of late notions on this subject have been modified, and it is thought now that the number can be increased to eight hundred. My own opinion is that three hundred and fifty are as many as one superintendent can personally supervise; but when that number is once exceeded, it matters little whether there be eight hundred or two thousand, provided competent assistants are secured; as the immediate care of the patients would necessarily devolve upon them, the superintendent being able to give only general supervision over such a large number in addition to his other duties. The feeling is, however, that eight hundred patients are as many as should be cared for in one locality, the balance should be scattered about the main asylum within a radius of three miles. There is hardly room around one institution for more than this number. Large pleasure grounds, long walks within the enclosure away from public view, and much land for raising vegetables, for recreation and regular occupation for patients, are required. The eye sickens to see constantly this feeble multitude passing and repassing on the limited walks, jostling each other; and the ear tires listening to the loud and improper conversation caused by the mingling and confusion of the crowd. Delicate and sensitive patients are made nervous and their convalescence retarded, witnessing such sights and hearing such sounds.

Second, as to the feasibility of caring for the chronic insane by the colony system. Not all the chronic insane can be properly cared for in this way, but a large class of quiet patients can be made more comfortable, and be likely to attain a better degree of health than in many of our best regulated asylums.

Thus far provision has been made for recent cases, those much disturbed and requiring most careful nursing and medical attention—the demented, the homicidal, the suicidal, and those suffering from physical complications; but as previously stated, for a large number, such as have acquired habits of self-control by prolonged residence in the asylum, and are quiet and industrious in their habits, although more or less impaired mentally, no provision exists entirely suited to their condition. They get along in the regular asylums without difficulty, have become wonted to the place, accustomed to its routine, and enjoy

the liberty of the grounds; but do not require the supervision needed by many of the patients associated with them, or the appliances of the asylum, and at the same time occupy the room required in many institutions for recent and acute cases. Besides they are generally in a condition to do certain kinds of work and would be better for it.

In our regular asylums too little facility is afforded our patients to engage in regular occupation. But in the colony there will be systematic work provided, such as many will enjoy, having been accustomed to it when well, which will keep them much in the open air as well as afford such activity as will best promote health.

A change from one institution to another has in our experience proved beneficial in many cases. After a residence in the asylum for several years, the halls, the furniture and the scenery around will become quite familiar and serve no longer to stimulate the mind or awaken new ideas. The benefit of a change is recognized both by physicians and the public generally. Many well-to-do persons leave comfortable homes and go to the sea-shore or to many other desirable places which our country affords, pay high prices often for very ordinary accommodations, submit to many inconveniences for the purpose of securing a change and the beneficial effects resulting therefrom.

If patients going from one institution to another with similar appliances and architectural arrangements are often much benefited, how much more good should we expect if they were transferred to an institution especially arranged for them with greater freedom and regular occupation in the open air, in a home resembling that to which many had been accustomed when well, such as the colony will afford.

Third—The colony system is the most economical yet devised in providing accommodations for the insane. In most of our institutions the cost for room per patient will range from \$1,000 to \$3,000. In the colony, it will not exceed \$300, a reduction of at least 66 $\frac{2}{3}$ per cent from the expense of our regular asylums, which in the aggregate would be a large saving to the State. In other words, an institution that will accommodate four hundred patients built after the style of those now established in Michigan, would cost \$400,000; one built after the colony plan as above suggested to accommodate the same number, would cost \$120,000.

It must not be understood, however, that the colony system can be made to supplant our regular asylums, but is intended as a part

of the general system of providing for the insane. It would not be at all adapted to the treatment of persons suffering from acute diseases, accompanied by great excitement and uncontrollable impulses. A few convalescent patients no doubt will be permitted to enjoy the privileges there afforded for facilitating their recovery; but for the most part it will be occupied by chronic cases that have been under treatment for a long period of time in our regular asylums, and have acquired habits of self-control, sufficient to enable them to enjoy in some respects the freedom of an ordinary citizen.

In addition to the great saving in accommodations, no little revenue will accrue from the labor of patients thoroughly organized. Two years ago the trustees of the Michigan Asylum for the Insane, purchased a grass farm containing one hundred and seventy-six acres, and have since added eighty acres more, making in all two hundred and fifty-six acres, which is used for growing hay and for grazing purposes. The purpose had in view was to furnish all the milk consumed at the asylum and to provide suitable occupation for patients. On the farm a house has been erected with capacity for thirty patients, constructed much after the plan of ordinary dwellings and provided with furniture and appliances for house-keeping; also a barn with room enough to stable sixty cows.

Twenty-five male patients now occupy the house. Some of them assist in the house-work, making beds, sweeping and mopping, and preparing food for cooking; others, in caring for the stock, in milking, and in doing the general farm work. The plan thus far has worked well, and leads us to think that it can be extended so that a large number of the chronic insane can be cared for in colonies thus established.

In this way the labor of patients can be made to contribute largely towards supplying milk for the asylum, a most suitable article of diet. Ordinarily, the labor of patients about an institution, such as raking leaves, running lawn mowers, working in the garden, and assisting in other "odd jobs," while useful and beneficial, does not amount to much comparatively speaking. But with departments of labor thoroughly organized as on farms for producing milk, making butter, growing fruits and vegetables, many articles of diet can thus be supplied at a nominal cost to the institution, and the expense of maintenance will consequently be materially reduced.

It may be said that the colony system possesses no advantages

over county receptacles for caring for the insane; but a moment's reflection will show a wide difference in the two systems. In the former case, patients are carefully selected with reference to their fitness to live at the colony, which differs little from ordinary home-life; while the regular habits and all the comforts of the asylum are maintained. In case of disturbance, patients can be readily returned to the asylum proper. In the latter case, no such selection is made; but all unfortunate persons indiscriminately are congregated together without trained attendants, without proper classification, and without the comforts essential to their welfare. Under such circumstances, many retrograde in their habits and soon become violent in their impulses.

Indigent and self-supporting patients will be sent to the colony and encouraged to occupy their time usefully, as the same beneficial results are derived by both classes. Some of the most industrious patients in the asylum, are from those who pay their own expenses. No one is compelled to labor, but all that are able, are encouraged to do what their strength and capacity will permit. The act of organization of the Michigan Asylums for the Insane contains a section directing superintendents to provide suitable occupation for all patients able to engage therein, and likely to be benefited therefrom.

In carrying out the provision of the statute, the first consideration has been to benefit the patients, and the second to utilize their labor so as to make it most remunerative to the institution.

Some of the features of the colony system may thus be briefly stated:

(1.) It preserves the same grade of care and treatment for all classes and conditions of patients.

(2.) It increases the means of classification, meets more fully individual necessities, and restores home-life as near as practicable.

(3.) It affords speedy relief; within a year provision can be made for the reception of patients. To locate, construct and organize an asylum after the plan of those established in most of our States, three or four years will be required, if the necessary appropriations for building can be secured.

(4.) It is better adapted to the class of patients for which it is intended, as it grants greater freedom and tends to cultivate habits of self-reliance.

(5.) It provides suitable occupation for all patients able to work, so organized as to be made most remunerative to the insti-

tution. Occupation, judiciously directed, constitutes one of the most important aids to treatment.

(6.) It affords an important change, which will exert a curative influence over patients.

(7.) It is the most economical plan of providing for the insane, reducing materially the cost of accommodations, as well as of maintenance, without reducing essential comforts.

For these reasons, the colony plan seems to possess advantages over other systems inaugurated. It removes the objections raised against separating the curable from the incurable insane, avoiding the process of herding patients, or collecting too many in one locality, as unfortunately is the case in some institutions; and also discourages by its economy county provision for the insane, which has been tried and often abandoned, but still has many advocates.

I offer this plan, as my first contribution, hoping that, in case it should be found to possess no advantages over others established, it will at least awaken additional interest in the subject, and stimulate others to devise new and improved methods, that will prove advantageous to the State, and a great blessing to suffering humanity.

THE CARE OF THE CHRONIC INSANE.*

BY P. M. WISE, M. D.,

Superintendent of the Willard Asylum for the Insane, Willard, N. Y.

The broad classification of insanity into two great classes, the recent or acute, and the chronic, is an expedient one, but is not a scientific or accurate one, and the abuse or injustice that may attend its arbitrary application to the care of the insane should lead to caution in its use. Without secondary dementia, or positive symptoms of organic degeneration, we can, in very few instances offer an unqualified prognosis. A still greater error is to base the classification upon a fixed period of duration of the insanity, an error that has some statutory recognition in several of the States.

Although chronicity does not literally indicate incurability, the terms are popularly used as synonyms, and this use has been fostered by the relegation of the so-called incurable insane, from hospitals to poorhouses or mere places of custody, without hope of further intelligent observation or treatment.

If the question before the Association could be considered without its relation to other questions, and notably, to existing provision for the insane in the several States, it might not be difficult to gain an expressed unanimity of opinion from its members as to the best methods of care for the chronic insane. For, if we do not recognize any arbitrary limitation to the curable period of insanity, and if the disturbed conditions that are met, in varying degrees, in acute and chronic insanity are nearly identical; if the chronic insane relapse into conditions that require for their proper treatment the facilities of a hospital, then we may, with very fair reason, determine that the best method of care for all the insane, is the method that will place them all under the control of a hospital plant. In other words that the mixed asylum is the best adapted for the care of all the insane, provided the conditions are available, that are now considered requisite for a proper classification and distribution of the several classes, and to furnish appropriate means for employment and diversion.

But frugality in expenditure of public funds demands a restriction of expensive hospital plants to actual needs. The mass

* Read before the Association of Medical Superintendents of American Institutions for the Insane at Detroit, Mich., June 14-18, 1887.

of the insane, who do not recover, become a great public burden, and they are relegated frequently, for economical reasons, to poor-houses and infirmaries. Thus the care of the chronic, or that class of the insane that have passed beyond the need of expensive hospital appliances, has become a distinct social and professional problem. In seeking the best methods of provision for this class of dependents, we should not only have regard to their welfare, but equally consider the relations that such provision bears to public imposts. Prodigality in expenditure of tax funds for eleemosynary purposes, is not only a wrong principle, but its reaction upon political and public sentiment retards and injures the objects we are seeking to effect, as the history of provision for the insane in several of the States clearly illustrates.

The several propositions that have received serious consideration in America, are

1. Separate asylums to receive the insane that have passed the acute stage of disease in hospitals.
2. Annexed or detached buildings of a plain character suitable for the custodial care of the chronic insane, in connection with and under the hospital government, or
3. Where the former is not practicable on account of restricted domain and urban location, the colonization of chronics on suburban farms, but under the hospital government.
4. The family system of care.

Before referring to the propositions, *seriatim*, it may be well to observe that each has received practical experimentation, and is probably represented here by an advocate, who, I pray, may be heard in the discussion to follow.

The care of the chronic insane in separate asylums has a luminous illustration in the State of New York, where there exist two large asylums for this class, with a combined capacity for three thousand patients. Political and professional obstruction to a course dictated by a public sentiment that was aroused by the reported abuses of the insane in county almshouses, was the embryo that developed into the Willard Asylum. It has already cared for more than four thousand of the chronic insane in a manner that has received general and unqualified approval, at a comparatively low rate of maintenance, and at a cost for construction that was not approached by contemporaneous asylum buildings. The results sought by the promoters of the Willard Asylum have been attained in a great measure of success, but, as far as the separate care of the chronic insane is concerned, it has been

imitated in a meager degree by other States and the Provinces, and for reasons, we may assume under the consideration of the second proposition.

The organization of an asylum for the chronic insane should not differ materially from that of a hospital. Classification and treatment of the disturbed and relapsed cases require the usual hospital facilities and appliances, although in smaller proportions. A prerequisite condition is a ground area of not less than one-half acre, and preferably one acre, per patient for the contemplated limit of capacity, which should be fully secured when the asylum is located.

It is indisputable that nearly all our public hospitals are largely filled with insane that may be designated as chronic; or, in other words, with patients who do not require hospital accommodation. In the New York State hospitals, a very fair estimate of the proportion of acute insane in their aggregate population at any one time, is twenty per cent. For the remaining eighty per cent, construction is provided of a character that is not at all necessary, but is, on the contrary an impediment to the convenient and economical administration of the departments for hospital cases proper, and at a cost of construction many thousands of dollars in excess of the detached or house plan for the same number.

The addition of detached departments for the chronic insane, to hospitals either already existing or designed with a view of providing hospital and asylum accommodation for the insane of a district, is a means of provision that has been, in recent years, more in favor than any other. The asylums at Kankakee, Toledo, Richmond and Clarinda are examples of recent tendency in this direction, although the first mentioned asylum has been in operation a sufficient length of time to test its advantages or disadvantages. Much may be said in favor of such a system of detached buildings or houses for the chronic insane. Facilities for classification are greatly increased thereby; opportunity for an easy relief from the almost necessary hospital restrictions are afforded, and a nearer approach to domesticity gained. Such a system cheapens asylum construction and permits the State, without demoralizing its treasury and discouraging its taxpayers, to sustain a policy of caring for all its insane wards. Some objections may be offered to the detached plan as exemplified at Kankakee, to which I will merely refer, and will not attempt to discuss: that separation of classes and immunity from fire extension is not met in the best manner by the near proximity of the

buildings to each other: that dining arrangements requiring patients to go out of doors in all kinds of weather and temperatures, and, during a portion of the year after dark, might be embarrassing and sometimes unsafe. The system of construction at Toledo may be criticised from the fact that its house plan is maintained to the exclusion of all proper hospital construction, although its functions will be those of a district hospital and asylum.

It may be proper for the speaker to confess that he is personally committed to a plan, as a member of a commission to locate and provide plans for a State Asylum in Northern New York. The commission embodied in the design submitted to the legislature, their conception of the typical combined hospital and asylum, and a brief description of these plans may prove more interesting for purposes of discussion than any abstract proposition. The commission, by a gratifying unanimity, were determined upon obtaining an ample acreage for the asylum domain, and the last legislature, in accordance with their recommendations, appropriated for the purchase of nearly one thousand acres of well improved land, on the St. Lawrence River, near the Thousand Islands; or, one acre per patient for the ultimate capacity it is supposed the asylum will reach. This land is a sandy loam, and is easily worked, a feature by no means insignificant in its relations to the care of the chronic insane. It lies upon a modest bluff, at no point more than fifty feet above, and overlooking the river. The environment can be made, at small expense, ideally perfect. The commission, having in view a mixed asylum for ultimately one thousand patients, designed a hospital with a capacity of one-fourth of that number. The remaining number, or the chronic class, are provided for in detached houses with more than a nominal separation. The grounds admit of a park arrangement and straight streets or drives are not designed, nor a rectangular or geometric arrangement of the houses. There is a farmer's cottage for fifty patients and a gardener's cottage for a like number, situated most conveniently for their labors. With the exception of the infirmary pavilions, the style of structures is diversified and broken as much as possible. Sitting or day-rooms are provided on the first, and sleeping rooms on the second floor. With the exception of several groups of three cottages with radiating covered ways to associate dining-rooms, it was intended each cottage should have kitchen and dining arrangements. It was, in short, the intent of the commission to make the provision for the mass of the chronic insane in this asylum approach as

nearly as possible domestic conditions, while allowing for all appliances necessary for its simple and economical administration.

An objection to an increase in the culinary departments by this system, may be anticipated. I am led by experience to believe that no difficulty will be encountered, but that, on the contrary, such a division will prove beneficial in interesting a larger number of patients in domestic work; that a more varied diet can be maintained at less expense and with less waste, and that food can be served in better condition than by the congregate system. The usually simple dietary that is needed for the chronic insane in public asylums does not require a French *chêf* for its preparation, but competent persons can be employed who can be easily trained for this work.

The hospitals at Middletown, Ct., Concord, Elgin, Harrisburg, Jacksonville, Washington and London, (Canada), have supplementary detached blocks for the care of the chronic insane. The chief objection to several of these structures is that they are three stories in height.

A cardinal rule for construction for the insane might be, that no building for patients should be higher than two stories and have not less than two stairways from the second story convenient to reach from any part of it; and that no operative department of the asylum should be in the basement.

When a sufficient acreage can not be secured adjacent to the hospital domain, and where supplementary accommodation for the quiet, harmless and industrious class is desirable, the feasibility of the colony system can hardly be questioned. The medical service should be distinct and efficient, and the separation from the parent organization should be only so far as to procure a good and ample location. In other words, separation of the organization should not be for the sake of separation, but to procure conditions that can not be otherwise provided as well. Expediency, and the attainment of environment, employment and other diversion for patients who do not require the contiguity of a hospital plant should overcome the objections to a reasonable distribution of the hospital organization, which, in any event, with the modern facilities for quick and easy communication, can not be of a really serious nature.

Finally, there is no system or no method of care that we can positively determine to be applicable to all conditions. Political, professional and social sentiment, customs, climate, prevailing habits of the community or country, existing structures for the insane, economical expedient, are all modifying influences that should temper any system or method to harmony with the prevailing

question of the best care for all the insane whether acute or chronic.

The care of the chronic insane in families, has been advocated for several years by excellent authority, and has been practiced in the commonwealth of Massachusetts. I am informed, at the present time, there are seventy of both sexes boarded in families under the control of the State Board of Lunacy and Charity of Massachusetts. The Scottish system of family care has been in successful operation for a number of years.

It appears to me that the pecuniary advantages to be gained by this system are trifling, if any. It is true that the State is relieved from building to the extent of the number thus provided for, but it has not been shown that the insane can be maintained in families as cheaply as in asylums for the chronic insane. The class that are selected for family boarders are usually the productive element of an asylum, and therefore the family gain the fruits of the patient's industry while the asylum is, to the same degree, a loser. The apparent and claimed advantages from this system, are the domestic and social life gained by the patient, and their amalgamation with the community, resulting in a greater degree of contentment; the greater likelihood of finding means of self-support, and the increase of confidence on the part of relatives of patients in their ability to care for their insane friends, after they have successfully received family care. The objections to the system that appear worthy of serious consideration, are the difficulty of placing patients in proper families; their unavoidable distribution over a large territory and the consequent embarrassment in making them frequent official visitations, and the danger of abuse and neglect. At the low rates of board that have been proposed for family care, there must be a temptation to turn the quiet, tractable, demented insane ward into a family drudge, and any neglect of official vigilance might beget a system that would resemble, in some of its features, that system, now happily obsolete, of buying the maintenance of the poor of the lowest bidder. From American families we can not expect to attain the results that have been achieved among the Scottish peasantry, and we can not anticipate that much relief will be experienced from family boarding of the chronic insane for several generations to come.

With this meager outline of this very important and practical subject, Mr. President, I commit it to the association, with the hope, if the discussion shows a unanimity upon any part of the question, it may result in the modification of the resolutions of 1851, as amended in 1866, which, I am convinced, do not fully represent the sentiment of the Association at the present time.

NURSING-REFORM FOR THE INSANE.*

BY EDWARD COWLES, M. D.,

Superintendent of the McLean Asylum for the Insane, Somerville, Mass.

It is a rare event when, in the cause of humanity, the gratitude of a great nation is earned as it was by Florence Nightingale in the noble reform which she began in 1854, in the Crimea; the whole world acknowledges its lasting debt to her. No greater work has ever been done for the amelioration of human suffering and the saving of human life than this, which has been accomplished in the brief time of one generation. The history of hospital reform, and of nursing reform in the general hospitals, is well known. But it seems not to be known so well that when Miss Nightingale went to Kaiserswerth in 1844, to be trained in the art of nursing the sick under the instruction of a Protestant Sisterhood, Parson Eliedner only represented there the humane spirit which had previously, in Germany, inspired also Dr. Jacobi in his work on "*Hospitals for the Insane.*" The world knows what was done in France, years before that time, by Pinel. Dr. Jacobi despaired of his ideal in the attendance he desired for his patients; and since his book was republished in England in 1841, with Samuel Tuke's introduction, nothing has been written which sets forth a clearer or more humane conception of the needs of the sick, and especially of the insane, in intelligent and sympathetic personal attention, than came then from those two men. The leadership in these ideas of reform then belonged to those who had the care of the insane; and those who have come after them in this work have constantly striven to put these ideas into effect. Dr. Browne, at the Crichton Institution, in 1854, the same year that Miss Nightingale was in the Crimea, had as high a purpose and as humane desires, in giving his thirty lectures to his officers and attendants, and striving to get for his insane patients what so many have longed for—the ideal nurse. But the crying need of this has come down to our own times, through a series of lamentations that the boon could not be had, and of failures to gain it. In the meantime the way was opened for the general hospitals; the opportunity came, and with it the woman. She has created

* Read before the Psychological Section of the International Medical Congress, Washington, D. C., September 8, 1887.

an epoch for the hospitals, while the asylums were still groping to find the way in which they first felt the need of going.

There were reasons for this failure of the asylums; and now that, under the stimulus and example of the work in the hospitals, the former have made a beginning in nursing reform for the insane, it will be profitable to study those reasons, and to get as clear a view as possible of the best way to carry on the reform. The movement has been begun in America with a scope of purpose and an effectiveness of early results that furnish something to study, for improvement or approval. At this stage of progress it is important that good foundations shall be carefully laid, and that the contingencies which endanger the success of the movement shall be guarded against. "Slow and sure" is a good motto in this, as in many other things, because failure, or even qualified success, means at least the misfortune of delay in a great reform that is certain to prevail.

While viewing the subject in its larger aspects, it is the present purpose to say something of the apparent difficulties in establishing systematic methods of training nurses in our asylums,—difficulties that disappear if properly provided against; and especially to point out some of the real difficulties that will arise at the beginning and in the course of such a work, and threaten its failure. Something of warning and suggestion on my part may be justifiable, from its having happened to me, in the last fifteen years, to organize two training schools, one of them in a general hospital, and each requiring about five years for the preparation and establishment of the work. This must be the apology for assertions which it might require more extended discussion to sustain. Besides the difficulties that may be readily apprehended in making innovations in the usually well-ordered systems of asylum service, some other apparent ones, that seem to stand in the way of training nurses, may be mentioned as examples. It is thought by some that the educating and fitting of women, in the asylums, for general nursing will lead the nurses into this branch of the work for the public, and lose them to the asylums for whose benefit the labor of training is primarily undertaken; again, if to avoid this, they are trained simply for the especial nursing of the insane, they will find themselves without an occupation outside of the asylums, because there is so little done in the country in general in the private and home care of the insane. This at once shows that in addition to the interests of the asylums and their inmates, there are, on the one hand, important questions con-

cerning the interests of the public at large, and on the other, of the nurses themselves.

To answer these questions and others let us take a large view of the subject, in order to include some of its less obvious bearings, and look first at the results of the reform in the general hospitals. Those in Boston furnish good examples of these results, both to the hospitals and to the public. Previous to 1873, the old order of things existed in all America. In that year in Boston, (and in the same year in New York and New Haven), there were imported the beginnings of that most beneficent work first organized in its secular and effective form, by Florence Nightingale, at the St. Thomas Hospital thirteen years before. At the Massachusetts General Hospital the work began in a few wards in 1873, and at the Boston City Hospital the formal organization of a school was complete in 1878 for the whole hospital. In 1873 the instructed nurse was an experiment, and a cause of apprehension. It was said she would know too much, or would think she need not obey the physician in all particulars; she would tamper with the treatment; she would want to be a doctor herself, etc. Now there are in this country, few general hospitals of importance, in which nurses are not carefully trained in their duties, according to well-established methods of instruction.

In the short period of fourteen years, since the introduction of the reform in America, the following are some of the results of the work of the principal Boston schools—the Boston Training School at the Massachusetts General Hospital, and the Boston City Hospital Training School. The table shows the whole number of graduates, the average number of graduates that remain in the service, and the average number of nurses, trained and untrained, on duty at all times:

	Whole No. of Graduates.	Average No. of Graduates Remaining.	Whole No. of Nurses on Duty.
MASS. GEN. HOSPITAL, IN 14 YEARS,	159	10	60
BOSTON CITY HOSPITAL, IN 9 YEARS,	141	14	70
TOTALS,	<u>300</u>	<u>24</u>	<u>130</u>

Only so many graduates are retained each year as will fill the few vacancies that occur in the relatively permanent staff of head nurses, of whom there are only a little more than enough to furnish one for each ward, and to provide for some special service like night duty. At the Massachusetts General Hospital, the first class was graduated in 1875, of only three nurses; the second

class numbered eleven; the third, five; the fourth, twenty; the fifth, six; and the numbers have since ranged from fourteen to twenty-one graduates annually. The Boston City Hospital School has a similar history, graduating its first class in 1880, and averaging eighteen graduates annually for the whole time.

It is of interest here, to notice what has become of the three hundred graduates from these two schools. The figures are approximately as follows:

Remaining in Parent Hospitals, as stated,	24
In other institutions,	30
In District Nursing,	8
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Total in institution and public work,.....	62
Engaged in private nursing,.....	170
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Total continuing as nurses,	232
Married,.....	37
Died,	10
Studied medicine,	1
Unknown as to abode and occupation,.....	20
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Total out of service,.....	68
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	300

Thus it appears that more than three-fourths are continuing the work of their new profession. It is significant that only one has studied medicine; Florence Nightingale said that woman was made to be a nurse and not a physician. The most of those in other institutions, and a number of the private nurses, are in other States. The City Hospital being the larger has done about one-half of this work in nine years, against the fourteen years of the Massachusetts General Hospital.

The Registry for Nurses in Boston, has been in existence nine years; its work is represented in gross as follows:

Number of male nurses registered,	84
Non-graduate female nurses,	408
Graduate female nurses,	245
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Total number registered,.....	737

But in the year ending November, 1886, these two hundred and forty-five trained nurses were represented in the registry by only one hundred and sixteen of their number who remained connected with it; and the proportion of trained nurses to the untrained

is increasing every year. In the training of nurses for more special work mention should be made of the New England Hospital for Women, and the Boston Lying-in Hospital.

The showing here given, from only one centre of this nursing reform, indicates how ready and active is the growing demand for the services of this profession; how quickly the product of the schools is scattered; what an immense agency for good is being evolved by this movement; and what a small proportion of those graduated from the schools is found to be enough to be retained in the hospitals, in order to perpetuate the invaluable advantages of the new system. It is noteworthy, also, that so large a proportion as nearly one-fourth has so soon fallen out of the work. The annual product from the two hospitals, here specially mentioned, is about thirty-five graduates, and of these only about five to eight are retained, in both together, to fill vacancies made by retiring head nurses. It is remarkable that these results have come, in so short a time, from meagre beginnings; for several years it was difficult to find enough women to undertake the work, but now, in contrast, the number of applicants is far in excess of the requirements. All foreknown vacancies occurring from regular graduations, are filled a year in advance at the Massachusetts General Hospital, and it often happens, in both hospitals, that fifty applications are received in a single month.

The Boston Registry frequently sends the city-trained nurses to places in all parts of New England; and applications are constantly being received, from all parts of the country, for nurses to go and settle in the cities where there is no supply. There are now in this country more than thirty such schools, and yet the supply of graduates from well-organized schools falls far short of the demand. At the last annual meeting of the Massachusetts Medical Society, a paper was read by Dr. Worcester, of Waltham, on "Training Nurses," advocating the importance and feasibility of doing this for country practice. His arguments were drawn from practical experience in a small country hospital. It is the trained nurse that makes practicable the extension of the cottage hospital system, in which there is, happily, such a growing interest in America, and in which a good proportion of the graduates of the schools is already employed. The demand for this special work must increase, and it is probable that, in time, trained nurses will become as common as physicians, even in country towns; there is evidence now that the physicians of Massachusetts, for example, are generally ready to employ such nurses when they can get them.

It is really no loss to the movement that so many of the nurses fall out into other ways of living; the more there are who marry, the more generally will be distributed, in domestic life, an understanding of the use and value of their training. It will take time, of course, to attain such general results as are here indicated, but it must be, always, a simple question of supply, demand, and diminishing cost to an acceptable and equitable standard, just as it is for medical services. Any present evils, if such there be, of over-training or other errors of the system, are sure to be corrected in time, by the repressing influences that must always exist.

Any one who has watched the progress of this reform, would undoubtedly say that from the beginning the demand for nurses has grown with the supply, and that it will be practically unlimited. In fact, in the country in general, it will be long before the present stage is passed, in which the supply must *precede* the demand, for the reason that the value and practicability of the common employment of such services can not become generally known except by the gradual diffusion of their actual use, which must come by the distribution of persons enough to render them available. The establishment of the Registry for Nurses in Boston, in 1879, has had a large and important influence in this matter, by regulating and facilitating the employment of these nurses, thus aiding greatly in introducing among the public a knowledge of their value, and making a market for the products of the schools. Were there no such market the manufactories, so to speak, would languish.

These considerations lead to one of the points already mentioned, which needs to be especially emphasized, and it is the main proposition of this paper. One of the most important requirements is, that there shall be an ample and continued demand, outside of the asylums, for the services of such a profession, otherwise the new system would have failed long ago. In the old order of things, with only exceptions enough to prove the rule, the attendant has been a make-shift for the asylums; her asylum work is a make-shift for herself also, and will always be so until such work fits her for, and leads her to, a respectable and more remunerative, or otherwise desirable, life-supporting occupation. When this is done, the benefit of the asylums, as now of the hospitals, will lie in this very fact, and secondarily in the fact that not all graduate nurses will be so led away from institution work. Some will remain in it precisely as do medical men; indeed, with a difference only in the grade of the work, the

analogy in this regard is very close between the professions of the physician and the nurse.

There is a direct relation between our need of kind and intelligent nurses, and the necessity in their interest for fitting them to engage in a desirable occupation outside of the asylums, as an offset to the undesirable character of the service. Samuel Tuke, in 1841, describing the often repulsive and trying character of the work of caring for the insane, says "Can it be surprising then, if it be so difficult to meet with persons to fill properly the post of attendant on the insane; that instances of neglect or abuse so frequently occur?" He quotes Dr. Jacobi as saying, "I believe that this difficulty will never be surmounted till the spirit of the age becomes so far changed as to induce persons of cultivated minds and benevolent hearts to devote themselves to this employment from religious motives." But Mr. Tuke's comment on this is, that "such attendants would indeed be invaluable; experience however, in England as well as in Germany, does not lead us to expect a supply of this class." And further, speaking of what we primarily want "in those who have charge of the insane" as being "a sympathizing unselfish character connected with firmness and energy of mind," he says "these traits are however, by no means commonly found in attendants." In 1876, Dr. Clouston still had to lament the unattainableness of the ideal asylum and attendants, which he feelingly and graphically describes; and in his paper before the British Medico-Psychological Society, he puts the practical sense of the situation into these words, "I know of few members of this association who took to asylum life from 'higher motives' alone, however much these motives may influence the way our work is done. We can not expect from others what did not influence ourselves." In 1883, Dr. Clark advocated the education of attendants for a permanent occupation for the good of themselves as well as of the asylums. By this way, he said, we may advertise the asylums and attract to them the better raw material; by bringing more elevating influences to bear upon our attendants—in raising their social and industrial status, we shall raise them in the estimation of the public and themselves, and may reasonably expect a more marketable article by and by; their work will become a life-work worthy of the name.

It is curious to notice how slowly these more practical views have been put into effect in the asylums,—even in this country where the most is being done. But these views were the main-

springs of the principles that governed the work of the reform in the general hospitals, from the beginning twenty-seven years ago, and made it successful. We can not go against nature; we must take healthy human nature as we find it and make use of the common principle of wholesome self-interest as an instrument for our purpose. With proper regard for this principle we may expect our subjects to be able to afford the philanthropy we seek in them. This is not a theoretical matter. The analysis just given of the work of the Boston Training Schools, and the influence of the Registry for Nurses, proves every word here said, and that the application of these obvious business principles has already made the business success of this reform, as far as the general hospitals are concerned.

Now the application of this to our immediate purpose teaches us not only what our first action should be in the premises, but also the reasons to which allusion has been made, for the many failures of the asylums in their gropings for this object in the last forty or fifty years. The asylums, all the time, began at the wrong end of the problem, ignoring too much the larger view. The limited object of the immediate interests of the service, and of the insane in the asylums, the ease of giving a few lectures which made a quick but deceptive show of "systematic training," the lack of the sustaining moral and business force of the outside organizations by which the first training schools were established in the hospitals, have led to disappointment and failure. The warning is plain; the lesson is,—lay a good foundation for your work and build upon it safely and surely. In the general hospitals the order of importance is reversed,—lectures are regarded as of minor consequence, and true training as consisting of practical work in the wards and drill by teachers in class-room work in the text-books. Another of the prime causes of the failures was that no public demand had been created for asylum-trained nurses;—the superintendents could not,—and later did not when they could,—set before the prospective attendant anything beyond the moderately paid asylum work as an adequate object of a reasonable self-interest. The general hospital schools met a more obvious want, thus having the advantage of the asylums; the hospitals have led the way; the asylums have only to recognize the fundamental principles which sustain the former, and to follow their methods now well-established and approved by experience. There is no need of more "attempts" and "experiments."

Looking at this larger aspect of the movement, and on the basis

of the proposition to which we now return, that it is essential to its success that there shall be a large and continued demand for the product of our schools, certain practical questions arise, and the answers to these furnish the solution of our problem. The truth of the foregoing proposition was made plain in the first six years of the reform in America; and when, in 1879, it was determined to carry it into the asylum at Somerville, we found ourselves confronted by the questions just intimated. The use here of our experience may be pardoned, for the sake of clearer illustration; a few facts will be of more value than any theory. There was no uncertainty, with us, in regard to what the school should be, as to its methods;—its needs, as to its organization and the provision of a suitable teaching staff, etc.; it was to be no “attempt;” all was clear enough on these points. But the first question was, “How shall we make a nurse that will be useful to the public, and command its patronage; in other words, how shall we best subserve the grand purpose of all our work,—the public good, to which the personal interest of the nurse is incidental and complemental, and really a means to that greater good?”

The specialist nurse, we knew, would be a failure; and upon the success of the individual nurse, in the public service, was believed to depend the ultimate success of asylum training. The precise question was, “Can we teach the asylum attendant to be a good general nurse, with the limited amount of ‘bodily’ nursing there is among the insane?” (With respect to this, by the way, the large asylums, with their “infirmary wards,” have an advantage over so small a one as the McLean.) A collateral question was, “If we put the work upon the basis of that of a general hospital,—adopt hospital methods,—hold the inmates in the attitude of being sick persons, and as ‘patients,’ will it be consistent with the best interests of the insane as to moral treatment,—promoting home-like conditions, etc.?” It was determined, however, at the outset, to call the patients “patients,” as if to say, “you are sick, and may get well;” to make the attendants “nurses,” and the place a “hospital.” All the details of bedside attendance upon the sick were amplified as much as possible,—the most was made of all opportunities. For example, nurses practiced in keeping a chart of the temperature, pulse, and respiration, and taking other notes, could thus learn to perform these quite mechanical acts as understandingly as is necessary in any case. They would be relatively on a par with many medical graduates who see little of “cases,” till they come to treat them.

The practical questions resolved themselves, therefore, into one of getting proper instructors and laying a foundation for thorough work in the training, so that when this formally began there would be no half-way efforts that would invite failure by their inefficiency. At first a number of trained nurses from the general hospitals were invited into the service. Indeed, one employed as early as 1877, in a common ward for men, remained there five years, but with limited duty; still she and her successors,—the arrangement being extended to include other wards,—demonstrated the admissibility and the great advantages of the daily presence of unmarried nurses and ward-maids among male patients. From 1880 to 1885, nine other such hospital nurses were employed in female wards, with a view to gaining their aid in the establishment of our school. With one exception the terms of service of these were only between one and six months; they would stay no longer. One other was appointed Superintendent of Nurses, in 1882, but withdrew after two years; and another, promoted to be supervisor, still remains after three years' service, doing good work also as a teacher. From experience with these twelve nurses, there is ample warrant for saying that their general hospital training had, in some respects, actually unfitted them for "mental" nursing. They wanted to *see* some illness or injury, and to have something active to *do*; it was irksome to sit down and be companions to patients who did not do as they were told,—as the nurse had been led to expect among those having only "bodily" illnesses. Therefore these nurses were slow to acquire the true asylum spirit. The outcome of it was, that our female supervisor, who had been nearly twenty years in the asylum, was allowed by the authorities of the Boston City Hospital, to receive there a six months' special and comprehensive course of training. She was instructed, not only in the points upon which her experience was lacking, but she *learned the technique of school methods*. This done, (our whole service having been, by that time, brought up to doing the work in hospital ways, and to the expectation and desire for being trained), we were then, at once, able to have a school in full operation. The system of lectures,—the easiest part of it all to maintain,—was supplemental; this work, on the part of the medical staff, having been once prepared, there is afterwards comparatively little trouble in revising and repeating the lectures to successive classes.

In my judgment the important thing is to make large account of the general nursing. In the two years of training, the eight

months' term of the first year are given almost wholly to this in about thirty recitations, one each week, in several text-books; and in thirty lectures. Very recently the superintendent of the school at the Massachusetts General Hospital said to me (of two of our graduates taking a supplementary course of a year for a second graduation there), "they have been over this ground so thoroughly in their class-work and lectures with you, that they do not need that kind of instruction with us." At the asylum, therefore, they are trained as "bodily" nurses the first year and acquire the professional spirit that animates good work in that field, besides gaining some satisfactory practical knowledge of this business. At the same time, they have been trained by practical example and exercise in "mental" nursing, which is farther developed in the school work of the second year, in another series of as many recitations and lectures as in the first year.

The results now are that two classes, of sixteen and eight nurses respectively, have been graduated, and there is a senior class of fifteen pupils and a junior class of more than that number. Four only of the first class remain; two of these will probably enter the hospital, and after graduation there will come back to the asylum. Two, as has been said, are already finishing the extra year there. Ten have been engaged in private nursing with great success and are in active demand,—receiving fifteen dollars per week. None have been found wanting as "bodily" nurses, and some of the patients attended required a good knowledge of it. The second class of eight still remains with us. Ultimately we shall retain two or three of the first class, and so on of subsequent classes, and be entirely content to do only that.*

On the basis of this experience, it seems proper even to urge the suggestions here made. The first thing is to make a good preparation; there can be no doubt as to results, with a right beginning. Do not try to begin with a simply hospital-trained woman in charge, if better can be done, but regard it as imperative that, whoever it is, she shall have some general hospital training. This will avert great trouble and loss of time. About the second or third year, it will be discovered that the work is growing harder,—that the zeal of all concerned is failing, and that petty difficulties arise which a woman experienced in a hospital school would get on with as a matter of course, without

* A full account of the history of the school, with details of its organization, and courses of study, may be found in the Annual Reports of the McLean Asylum for the last six years,—particularly in that for 1885.

discouragement to the superintendent of the asylum. These drawbacks will be avoided, and the school will be self-perpetuating. In fact, the great point is, to keep clear in mind that the school system is a new and distinct department of asylum work;—provide it then with adequate and special officers, or specially train the existing ones, as teachers, and do not make its perpetuation dependent upon the continuous carrying on of its details and extra work by the medical staff, as a material addition to its duties. The best way is, to begin with the women alone, and get well organized on that basis; it is easier to get suitable assistance in teaching them. The men can be taken in afterwards with less risk and labor, when it is only necessary to extend an established system. As a head for the school, take some suitable woman already in the service, used to the ways of that particular asylum and its superintendent, and send her to some general hospital, to be fitted for the new work; a year's training might be enough. The hospitals are likely to be willing to help in this way; such things were done for some of them in the beginning. Do this first, and time will be saved thereby in the long run. While she is away some minor details of the new system can be introduced. In default of having such a woman, get one if possible who has already had training in both a hospital and some other asylum. That such a preparation will lead to success has yet to be shown; of course allowance must be made for the personal qualities which training can not change. Another way is possibly practicable. There must be some hospital-trained nurses who will enter upon asylum work with the right understanding and purpose when it comes to be known that there is in it an ample field for humane effort. Let such a woman be put into the wards, one after another, quietly keeping her own counsel, until she learns the peculiarities of the work, and gets the asylum idea and spirit if she can; then promote her for the purpose in view.

In regard to the training of men it is only to be said that we have been content to go slowly, and do one thing at a time. They do not lend themselves so pliantly as women to the spirit of the work; the inducements can not as yet be made so strong for them. Last year we arrived at the point of beginning recitations and lectures, with the first class of fifteen men. All new comers now readily obligate themselves to take the full two years' course. The second assistant physician mainly conducts this class. This year there will be two classes of men in operation, and the male supervisor is expected to become qualified to do a part of the class-room teaching, which eventually, with the assistance of some

future graduate, he may almost wholly do, relieving the assistant physicians from this part of the work. This is another way of providing teachers,—made necessary because the general hospitals do not yet undertake the special training of men. The indications of substantial results are already good among the men.

It has seemed to me to be fair, to hold out to young men and women, in our prospectuses and otherwise, the great advantages to be gained by them from this training, even if they have no idea of following the profession of nursing. The whole matter of instructing certain classes of people, as well as the public in general, by courses of what are called “emergency lectures” is becoming much in vogue and is precisely to the point in this regard. Young men and women, in an asylum training school, in addition to the regular compensation for service, would get this kind of valuable information, useful in any walk in life, and in a way to amount to something. Again, the primary education of those who can make great success in this calling is defective in many cases, and can be improved in most by the educational means necessarily employed in such school exercises as have been described. The study of the ordinary school text-books on “Physiology and Hygiene,” and other methodical class work; the writing out of notes of lectures with the criticisms thereon—the mental discipline in general, from all such exercises, are of themselves educational in the best sense, in the fundamental requirements of the common schools. There is besides the moral education. One only knows the full force of this who has seen the transformation, under his own eyes, of a company of earnest excellent young women; there comes into their faces—one feels as if he had “talked” it into them—the sure and pleasing signs of mental growth, as from girls they come to be thoughtful women, in so short a time. Some proof of this is shown, better than in words, by a composite photograph of the nurses of our first class, a copy of which may be found in the *Century Magazine* for November, in a second article by Professor Stoddard, on Composite Photography.

These considerations have impressed me with a more general one as to the interest and duty of the State in this matter. It is, to my mind, clearly within its interest to foster in the most efficient way, the progress of this reform; the diffusion of a practical knowledge of insanity, is, of itself, in the direction of prevention, and the wider the distribution of persons well-instructed even in elementary but practical knowledge of the subject, must be of great good. Why then should not asylum

schools be regarded as a part of the public school system, and as entitled to the fostering care of the State on this ground? Among the ideas of the duty of the State now gaining recognition in regard to industrial education, can not this work have its place, to a very direct end in the benefit of the State? The last Massachusetts Legislature was asked to permit the annual use of a small part of the surplus of one of the State asylums for the foundation and support of a "Training School," but for want of appreciation of the importance of the subject, it was lost in committee. The "school" must come in the asylums, for the good is so great from the small outlay required. Two thousand to three thousand dollars should amply cover all additional cost, not only for increased salaries of the teachers, but to pay ten dollars per month extra, if necessary, to each of the ten or twelve graduates who will be induced to remain as head nurses. Not every ward will need a graduate head nurse; to put advanced pupils in charge of some of them will be an advantage. The head of the school and her assistants as supervisors for the day and night, (all as teachers), should have liberal compensation, for the work is of a higher order than it has been accounted, and the results are worth more than they will cost. The other expenses, besides these for services will be insignificant.

The part of the asylums in the general movement begun by Florence Nightingale, may be made a large and proper one. The distribution of hospitals throughout the country is not general enough to do what the asylums can in this regard, these are so regularly situated as local centres. Thus each in its own locality may find sufficient demand for its products to stimulate their manufacture for the public service, and concurrently to supply its own wants. Every city of moderate size should have its registry for nurses, however humble it may begin; it may finally serve the whole country of which it is the centre. In the preparatory years of the school at the McLean Asylum, fifty nurses were sent out to private cases, thirty-one women and nineteen men, many of them returning when the special service was ended; the public was diligently led to understand that nurses would be so supplied; and for the sake of the ultimate greater good, the immediate convenience and economy of the asylum was often sacrificed by giving the best nurses the chances for the extra compensation. This was a strong stimulus for the school. In like manner, let the public expect to find general nurses by applying to all the asylums. Again, under a similar policy, any one of its departing graduate nurses is given

employment, at the McLean Asylum, whenever she wishes to return, upon agreeing to stay at least three months.

A word may be said in regard to the very large hospitals, with a corps of attendants that would be unwieldy in such school training. Classes of twelve pupils, each year, are quite large enough to be handled to the best advantage. It would seem that a working standard, suited to the circumstances, might be adopted, by which there could be two grades, one of attendants and one of nurses, selecting and promoting the most promising of the lower grade. Such a number of pupils would probably in time, supply the needs of any large asylum.

Another question arises in regard to the promotion of the private care of the insane; there is much that may be said upon this subject. In this country it is probable that we are to repeat the history of British Lunacy in this respect. This is said with no disparagement to the honorable gentlemen doing legitimate work in the private establishments and in the home treatment of the insane. Of course such houses should be under governmental inspection and endorsement, even if for no higher purpose than the protection of their proprietors, while the "home care" of these unfortunates may be carried on in a particularly loose and irresponsible way in the present order of things. The deliberate sending out of trained asylum nurses is not to be considered as liable to foster any evil in this direction—that must be antagonized by the usual corrective effect of time and experience. Is not the truest corrective in this matter also, in the seeing to it that all who have to do with the insane shall receive from us all that is in our power to give of whatever is right, and true, and honest, in all that goes to promote the intelligent and humane care of these unhappy people? Our views in these matters will the sooner prevail, the more there are of the well-instructed missionaries that go out from us.

Quite enough has probably been said, by way of warning, to redeem the promise in the beginning of this paper. Mention should be made, however, of a point of criticism of the new system, in New England, which may be instructive. There are conservative and intelligent physicians and surgeons who deprecate what they regard as the injudicious ideas of certain promoters of these schools, which beget too much of the masquerading of "higher motives," and the "woman's mission." It is not likely that this will amount to a serious evil;—in fact the tendency has been to resolve the sensational elements, at first not uncommon, into the plain common sense of simple good motives, and good conduct, and good work, in the seeking for an honest and respecta-

ble livelihood. It was a timely caution, however, recently given by an eminent surgeon, against training the woman so that she becomes a sort of hybrid, which is neither nurse nor doctor. In the beginning of a school, a few nurses, who know how to do acceptable work, with no parade nor nonsense, will do more to help on the cause, outside and inside of the asylums, than anything else. Of our graduates, we should be able to feel content in saying, "By their works ye shall know them and us." At the McLean Asylum the nurses are not taught to write theses and the like; they are quietly handed their diplomas when they are due, and there is rigid avoidance of promoting any other spirit than that of aiming at modest, quiet, unobtrusive devotion to honest work. In this we but imitate what is really the aim of the general hospital schools which have been established long enough to have settled down to the plain methods of solid business.

The feeling is strong upon me that the importance of this nursing reform for the insane is not yet half realized. The keen psychological interest an intelligent nurse will take (when taught to do it), in the mental operations of an insane patient, is something beyond even my very sanguine expectations. This puts a power into our hands for the moral treatment of our patients that opens wide possibilities in promoting their comfort and cure. One must believe this when he finds his nurses methodically and intelligently fitting their manner and speech to different patients, and with womanly gentleness, as well as with an effectiveness that comes from an almost unconscious knowledge (so to speak) of power to manage the varying mental states of the insane. The acute intuition of women, when trained to this work, becomes a most valuable instrument in our hands.

It is not the least of the advantages of this system, that it develops the personal relation between officers and the nurses. One can not meet his people, even somewhat formally in the lecture-room, every week for a series of months, without being more keenly moved by a sympathetic interest in each of them,—in their troubles, their good efforts, and their attainments. They discover this feeling, of course, and there is soon a community of interest, a unity of purpose, and a mutual confidence that brings good to the common cause. Were no "graduates" to remain in the asylums, the value and comfort of this system would be so great, in the current benefit of carrying it on, that once appreciated, no asylum superintendent would be deprived of it.

Finally: get ready before beginning; begin rightly; go slowly; do the work thoroughly; and there will surely be good results.

THE DISTRIBUTION AND CARE OF THE INSANE IN THE UNITED STATES.*

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GENTLEMEN:

The pleasant duty devolves upon me to welcome you to the sessions of this section of the Ninth International Medical Congress, and invite you to participate in the exercises of the occasion. It is a hearty welcome I give you, though clouded with sadness as we mourn the absence of one who was chosen to stand in this place and receive the honors of this position.

To many of us the death of Dr. Gray is a personal grief, and to all a cause of sad regret. This is not the time for any extended remarks or for a eulogy upon his life and character; but I should be recreant to my feelings did I fail to place on record an expression of appreciation of his services, and the loss sustained by his death. His life was devoted to the care of the insane and to the advancement of the specialty of his choice. The wide reputation he gained in both fields of labor furnishes ample proof of the success of his life-work.

The death of such a man is a grievous loss to humanity, in whose behalf he wrought; to the profession he honored, and to the specialty he loved. The section has lost the benefit of the wise direction and judicious counsel of one who by experience and ability was eminently fitted for the position he held. A great man, a representative leader in American psychiatry, has fallen.

DISTRIBUTION AND CARE OF THE INSANE IN THE UNITED STATES.

A brief statement regarding the distribution and care of the insane in the United States, will, we think, prove of interest to all, and especially to the residents of other countries, who are our guests upon this occasion. To present in the most concise manner the statistics of the insane, and the methods employed in their care, is the simple purpose of this paper.

As there is no annual enumeration of the insane in the United States we are compelled to refer to the last decennial census for

* Presidential Address delivered in the Psychological Section of the Ninth International Congress, Washington, D. C., September 5, 1887.

the record of numbers. This shows that in 1880, of a total population of 50,155,000, there were 91,997 insane, a proportion of one insane person to every 545 of the inhabitants. Considering the distribution of the insane as to locality or divisions of the country, the general principle is established that the amount of insanity bears a close relation to the duration of the social and governmental life of the people. This is well illustrated in the arrangement of the States by sections.*

Dividing the country into two great belts of north and south, there is an almost regular proportionate decrease of lunacy as we leave the older settled parts of the country along the Atlantic coast, till we reach the extreme western slope.

In the northern belt, the New England States take the lead with one insane person to every 359 of the inhabitants. This decreases till we reach the newer States and Territories, with one insane person to every 1,263 inhabitants. In the southern belt we have the seaboard States with one insane person to every 610 of the inhabitants, and the extreme southern States with one insane person to every 935 of the population. These figures emphasize the statement that the pioneers of our newer settlements are the more hardy and vigorous citizens, and that the feeble and dependent are left in their former homes, to enjoy the comforts of the hospitals and asylums, which are the special growth of the older civilization.

Further divisions of the total insane population of the country are naturally made by nationalities and by race and color. The native whites number 36,828,698, with 59,581 insane, or a proportion of one insane person to every 618 of the inhabitants; while the foreign whites, with 6,574,330, furnish 26,259 insane, or one insane person to every 250. The causes productive of the larger percentage of insanity in our immigrant population do not at present concern us; we but note the fact of the mixed character of our people as in marked contrast with the homogeneousness of other countries as represented in the great centres. New York is the first Irish city in the world, and Berlin and Hamburg are the only cities which contain as many Germans as our own metropolis. In London there is only one and six-tenths of one per cent of the foreign element, and the same characteristics are observed in Paris, Berlin, Vienna, and the other European capitals.† The colored class of our

* Prof. A. O. Wright, of Wisconsin. Proceedings of Conference of Charities and Corrections.

† See Andover Review, April, 1887.

population consists of negroes, indians, Chinese and Japanese. Of the former there is a total of 6,580,735, with 5,996 insane, or one insane person to every 1,097. In the negro race the proportionate increase of insanity is far greater than in any other division of the population. From 1870 to 1880 there was increase in the census of the colored race of 34.85 per cent, while for the same period there was an increase of 258 per cent of the insane.* This large multiplication has occurred since emancipation from slavery and the consequent changes in conditions and life. The causes are briefly told: enlarged freedom, too often ending in license; excessive use of stimulants; excitement of the emotions, already unduly developed; the unaccustomed strife for means of subsistence; educational strain and poverty. The total census of the other colored races is 172,020, with 105 insane, or one insane person to every 1,638. The small percentage of insane among the aborigines and Chinese is fully in accord with the observations of writers upon the causes productive of mental disease. There is much less of the refinement of civilization; less competition and struggle for place, power or wealth, and as a consequence, less tendency to mental deterioration.

As a supplement to these figures from returns of the tenth census, I have prepared the appended table, which gives the number of insane in the asylums of the country in 1880, and at the close of the last fiscal year, and also the number of medical officers. The table contains all of the more important institutions in existence at that time, as well as those erected since that date. The comparison shows the increase in number under care during the six intervening years. One hundred and twenty-one asylums are represented in this list, and of these 106 existed in 1880; while fifteen State institutions have been added since. In 1880 there were in the asylums here enumerated 39,093 patients, and in 1886 the number had increased to a total of 61,411 patients, making a gain in accommodation of 22,318. Of this number the new institutions contain 5,890, leaving an increase of accommodation in the older asylums of 16,428. The total increase is 55 per cent of the number provided for in 1880, or an annual increase of more than nine per cent. Should this continue during the rest of the decade there will be more than 75,000 patients in the asylums of the country in 1890, at the time of the next decennial census. It is impossible, with any degree of accuracy, to estimate the whole

* Roberts of North Carolina. Report of Eastern Asylum, 1883.

number of the insane at that time, but it is probable that this large increase of accommodation will lead to a decrease in the number of the insane in private care as compared with the figures of the last census. To care for this large number of patients there are 377 medical officers, or a proportion of one physician to every 160 patients; and if the small private asylums were included it would swell the number to 400, or one to every 150 patients.

The methods employed in the care of this large dependent class are an interesting subject for study, and to these your attention is next directed. These methods can only be enumerated rather than described in full detail, in the short time allotted.

It must be borne in mind that in this country there is no central authority in lunacy matters, and that all of our thirty-eight States and ten Territories are free to regulate their own internal affairs without supervision from the general government. This gives the greatest diversity to lunacy regulations, in respect to the law of commitment, and the organization and management of asylums, with however that agreement which the purpose to be accomplished, the care of the insane necessarily produces.

The institutions are varied in name and character according to the power which organizes and controls them. They are respectively State, county, municipal, private and incorporated asylums. The latter class consist of the insane departments of some of the old established general hospitals. The State asylums are under the charge of boards of trustees, or managers, who report directly to the legislature which creates them. The county and municipal asylums are controlled by committees appointed by the county or city officials, while the incorporated institutions are responsible to their several hospital boards. Additional supervision is provided in the State of New York by the appointment of a commissioner in lunacy, whose powers correspond with those of the English commission. In several of the States visitorial and sometimes supervisory power is conferred upon the State Board of Charities, but in the greater number there is no authority intervening between the managers or trustees, and the legislature.

State institutions now exist in all of the States of the Union except two,* and provide accommodation for the larger number

* NOTE.—Delaware and Vermont, the insane of the former are sent to the institutions of some other State, while those from Vermont are cared for in the private asylum at Brattleboro. The Territories of Arizona, New Mexico and Wyoming contract with the asylums of neighboring States for the care of their insane.

of patients that are under public charge. Separate provision is made for the convict and criminal insane in two States, New York and Michigan, an example which will in time be followed in the other more populous States.

The asylums* generally receive all classes of the insane, but in the States of Massachusetts, Rhode Island, New York and California, the policy of separating the acute and chronic insane has been adopted. The Willard Asylum, in the State of New York, was the first one organized for the special care of the chronic class, and has now a population of nearly 2,000 patients, taken largely from the county receptacles.

Although the theory that the insane are the wards of the State, and that it is the duty of the State to provide for all of its insane has been adopted throughout the Union, and the people have supplied the money with a generous and even prodigal hand, there are few of the States which have kept pace in the supply of accommodation with the ever increasing demand. This arises in part from the accumulation of chronic lunacy due to the prolongation of life from the better care and treatment of the insane, but more, from the phenomenal growth of our population and the consequent increase of the number of the insane. However good the intentions, the growth of charitable institutions is proverbially slow and rarely equals the needs of the dependent class, even among the most generous and sympathetic people.

Up to twenty years ago there was little diversity in the plans of asylums throughout the country. They were all constructed upon the compact linear design, introduced by the late Dr. Kirkbride, with which all are familiar from its frequent reproduction. The first essential departure from this plan was made at the Willard Asylum in New York, where a system of separate structures was designed by the superintendent, Dr. Chapin. These were located in different parts of the large farm in such relation to the central asylum buildings as to be within easy control of the administrative authority.

A separate provision for the more able-bodied workers, and for those who required for their care the facilities of the hospital

* It should be understood that our remarks apply to the State asylums of the country, the method of care for the dependent insane which has the approval of the medical profession and the confidence of the public. Most of the criticisms made against our asylum system have originated in the defects of county or municipal asylums, when other than strictly medical considerations have controlled their erection and conduct.

structure was the first division made. This has since been extended by the erection of special buildings for the more feeble and helpless class of patients. This departure from the established usage provoked discussion and called forth prognostications of failure. Experience however proved the practicability of the plan, and familiarity with its details showed its advantages for the purposes for which it was originated. The principle of separate structures has been adopted and extended in other institutions, and divisions and sub-divisions have been made until in some there are nearly as many separate buildings as there are classifications of patients. In carrying out of the plan to its legitimate conclusion we now have separate buildings for congregate dining-halls, for bathing and other services. The latest hospital plan upon this segregate theory resembles a village with streets, sewered, lighted, lined with trees and built up with neat and tasteful cottages. In all of these structures the resources of the architect have been invoked to give variety of form and to break up the monotony of former styles.

Another departure from the compact linear plan, is found in what may be called the congregate—segregate plan, in which the buildings, separate and complete, are joined by connecting fire-proof corridors. This combines to a great extent the advantages of the close and segregate systems; as it separates the buildings, gives the fullest opportunity for light and air, makes the classification more distinct, and still brings all within ready reach for administration and control. The plan is a flexible one and admits of indefinite expansion and of addition in various directions.

Beside new buildings upon the plans described there is great activity in the improvement of existing structures, by additions to the original buildings, or by the erection of others upon the grounds. The additions are mostly infirmary wards for the sick and feeble, and wards for the filthy and demented, or for the most disturbed and maniacal classes. All of the plans and arrangements give evidence of careful thought bestowed upon the subject, as well as of progressive views entertained of what is needed for convenience and care, and for the comfort of different classes of patients. The best type of these infirmary buildings consist of one, or at most of two stories. Exteriorally they are surrounded by broad verandas for exercise and protection from heat and storms. Interiorly, there are regular hospital wards with rooms for attendants, for friends visiting patients and for the seclusion and separation of special cases. Every facility which the home,

or general hospital, can furnish, for the best medical care of patients, is provided in these asylum wards.

The separate buildings for the quiet and demented class are usually of two stories, arranged with day rooms, dining and service rooms on the first floor, and sleeping apartments above. These generally consist of large associate dormitories, with a small number of single rooms for such patients as may suddenly become disturbed or violent.

In a few instances, seaside and country residences have been prepared as homes for the convalescent, and for such as may be benefited by the change of air and removal from the asylum and its associations. Farm houses already existing on asylum sites have been utilized for patients of the agricultural class whose surroundings are thus made to approximate their former condition. The limit of variety as well as of simplicity and economy in asylum construction was reached when tents were occupied by patients during the summer months while waiting for the completion of permanent buildings. They served a good purpose, and were said to be satisfactory for the temporary use of the patients assigned to them.

As showing the probable direction of changes it is proposed by one of the State asylums to erect a series of buildings, as a colony some miles from the hospital proper, where patients can be employed in cultivating land purchased for the purpose. The profits of labor thus employed in raising farm products it is believed will materially reduce the per-capita cost of maintenance, and at the same time improve the health and increase the happiness of such patients as can be trusted with the enlarged freedom.

Another proposed change is to attach to the present asylums for the acute insane, buildings erected at less cost and scattered about the grounds, for the chronic insane, thus bringing the two classes under the same management. When a case becomes chronic, it is to be transferred from the hospital proper to one of the cottages where opportunity for occupation in agricultural or mechanical pursuits is provided.

These changes in the construction and arrangements have been followed by others in the modes of heating and ventilation which accomplish the purposes with greater perfection and economy. Boilers adapted to extremely low steam pressure are taking the places of the former high pressure boilers, and direct radiation is now employed in various apartments with the advantage of increased comfort and more ready control. The large blower fans

which force air through conduits and basement passages have in many places been superseded by natural ventilation through windows and open fireplaces, or by suction fans, which give a more direct and positive current in the exit flues from the wards. By the use of these the whole volume of air in the building can be changed as often as three times an hour; even in those having an air space of 4,000 cubic feet per patient. Electricity is being introduced in the new asylums and many of the older ones are substituting it for gas for illumination, from motives of safety, cleanliness and economy. In all directions so far as relates to plans of construction and arrangements for the health and comfort of patients there has been during the past few years marked progress in American asylums. This has resulted in economy of expenditure in the original structures, in increased facility for classification and in greater regard for the needs of the individual patient, which is the highest good attainable in asylum care.

For the medical care and successful treatment of patients, the institutions of the country were never so well prepared as at present. A larger number of medical officers is provided and a higher standard of qualifications is sought, the effect of which is to reduce the influence of politics and favoritism in appointments.

In the State of New York the enforcement of a civil service examination gives a guarantee of good medical attainments in the successful applicant. The teaching of insanity in the medical schools has largely increased the interest in the subject. It has directed the attention of many of the younger men to the specialty, and led them to seek the advantages offered in asylums for practical experience, and has made the general practitioner more competent for the duty of examiner in lunacy, now so generally required by the laws of commitment to asylums. The knowledge thus acquired often enables him to make a diagnosis of the individual case and to form an intelligent opinion of the necessity of transfer to an asylum, or of the propriety of treatment at home, and in the latter case of conducting it correctly. The unparalleled progress in neurology, cerebral anatomy, physiology, pathology and localization of function has enlarged the horizon of our knowledge of disease and of the action of causes, and furnished a scientific and positive basis for treatment in many cases of insanity which before was unattainable, and has rendered possible those most brilliant operations in brain surgery by which epilepsy has been cured and brain tumors successfully located and removed. Insanity dependent upon disease of the reproductive system is

yielding to the operation for the removal of ovaries, and oöphorectomy is recognized as a legitimate mode of treatment and castration in appropriate cases has now some able advocates. Electricity, for many years a plaything and experiment in the hands of physicians, is now being used with more intelligent knowledge of its powers and of the class of cases in which it may prove useful. Its handmaid massage, less powerful and less mysterious, but not less practical, has gained a position of prominence in the treatment of insanity in many institutions for the insane. The experiments in mesmerism, mind-reading and the faith cure have led to a closer investigation into the relation between mind and body, with a result of finding in expectant attention a valuable and legitimate help in the treatment of mental disease.

In the strictly therapeutic treatment of insanity the statement of Dr. Tuke in his notes on the insane in the United States: "I am afraid we have neither anything to teach nor to learn from each other in the therapeutics of insanity," is as true to-day as when written. The advances in the discovery of new remedies, and improvements in the pharmacists' art, have been as readily received and subjected to the crucial test of experiment in the United States as in other countries. The large number of new drugs, new preparations and active principles which have been presented to the profession within the last few years has produced an embarrassment of riches in this field which we believe, had a good effect in practice.

It has led to differentiation in the use of remedies and promoted greater accuracy in prescribing. With a closer study of symptoms there has been a more intelligent and rational employment of the remedy best adapted to the individual case. Another result has been a marked tendency to break up a pernicious routine of practice which had its origin in a more limited supply of remedies. This better knowledge of drugs and of the limitation of their use has reduced the amount given, and to-day less medicine is prescribed and more reliance placed on other remedial measures.

In what may be called the moral as distinguished from the therapeutic treatment of insanity, there has been a great change of practice in the asylums of the country. The old time prejudices have largely given way to the more intelligent and less conservative methods of care. In this as in hospital construction, the demands of the individual, as distinguished from the mass, receive more attention, and this is the key-note of progress. It is seen in every

direction in which the care, or the interests of the patient, are involved.

In the way of amusements there is the greatest variety, adapted to the tastes of the individual. In all the asylums the time, patience, and ingenuity of the officers are taxed to increase the means of relieving the tedium and monotony of life upon the wards. In some institutions this is carried to the point of filling out every evening with some gathering of patients for instruction or pleasure.

The occupation of patients fills a prominent place in treatment, in the estimation of all who have charge of our institutions, and one will find in the different asylums nearly all the methods of employment which have been found useful in other countries. Here as elsewhere, nothing equals the benefit of agricultural pursuits for men, and sewing, laundry and housework for women. But for the large number of patients who are not accustomed to these forms of work, other means are made use of as spinning, weaving, embroidery, drawing, painting and fancy work. The clothing and bedding for the house are made by patients, brushes, mattresses, rugs and other household articles are manufactured, and in all departments of asylum work patients render willing assistance.

Schools are being revived in American asylums as a means of occupation and moral treatment. Although not employed so generally, as in the Richmond asylum under the late Dr. Lalor and his successor, or formerly in the Utica asylum under Dr. Brigham, they are found a valuable addition to other remedial agencies.

The benefit derived from systematic instruction in arousing attention, increasing mental strength, and diverting the mind from the various delusive ideas which control it, renders a full return for the outlay of labor in conducting a school and should lead to its introduction in all asylums.

As showing the amount and variety of occupation among patients, we present from the report of the Buffalo State Asylum, the table of work for the last current year. (See appendix.) This is but a repetition of what is done in other asylums, and is not presented as anything peculiar or unusual in amount or variety. Although the labor of patients has always been utilized, the real value of occupation as a remedial agent in the treatment of insanity, after the subsidence of the acute symptoms, has not been appreciated until a comparatively recent date. It is however, at the present time, receiving the attention which its importance demands.

In tracing the influence of occupation we are compelled to note

its four-fold effect: First, in the improvement of the general health and mental vigor of the patient; second, in arresting tendencies to dementia; third, in the reduction of violence and disturbance in the refractory wards, and lastly, in the decrease of mechanical restraint.

This introduces the vexed question which has been so often and thoroughly discussed since the days of Conolly and Gardiner Hill. Of the former attitude of American alienists I need not speak. The world moves and with it the views and practice of our profession, regarding the use of mechanical restraint. While the non-restraint system has not become a universally accepted dictum, there is but a minimum amount of restraint employed and then only under the personal supervision of a medical officer.

There are some American superintendents who have openly avowed their adherence to the absolute non-restraint system, and many who virtually practice it without being willing to proclaim themselves its advocates. The position of the profession in America, as I interpret it, is, that the employment of some form of mechanical restraint in certain cases is legitimate, and its members are unwilling to deprive themselves of its advantages, when in their deliberate judgment it is necessary or preferable to other modes of treatment in the individual case. While it is not ruled out by the tyranny of public or official opinion, which may overcome the judgment of the physician who is responsible for the proper care of the patient, it is only prescribed like any other medical or moral treatment.

In American asylums seclusion is usually resorted to for short periods only, and during the paroxysms of excitement. It is controlled by strict rules and continued only under the positive direction of the medical authorities.

The tendency in American institutions is toward enlarged freedom and liberty for the individual patient. This follows as a necessary sequence the general introduction of occupation for all who are able and can be induced to employ themselves in out of door work. It is further promoted by the now common practice of leaving the doors of some of the wards open during certain hours of the day for the unrestricted egress of patients. This has met with favor and has been successfully employed to a degree that could not have been anticipated, or even dreamed of as possible a few years since. It has subverted the former idea that none of the insane could be trusted save when safely secured behind bolts and bars. This tendency is further shown in the

granting of paroles, either general or restricted to the asylum grounds, to such patients as show sufficient self-control to inspire confidence in their ability to restrain themselves within the prescribed limits.

Another evidence of enlarged freedom is shown in the change of feeling in regard to the necessity or even value of airing courts. In many of the newer asylums no provision is made for them and in others their use has been discontinued. Patients are sent out to walk or to spend their time under the care of attendants. The result is highly satisfactory, as the watchfulness and supervision exercised over them is in marked contrast to the carelessness and indifference engendered by the high barriers of the court yard. The patients appreciate the greater liberty allowed, and efforts to escape are not more frequent or successful than under the former conditions.

Those who have had experience with both systems could not be induced to place their patients within the confined limits of enclosures. In still another direction is increased liberty of action manifest. Upon the convalescent and more quiet wards the doors of the rooms are left unlocked at night. This gives free access to the service rooms of the wards, removes the feeling of close confinement, allays fears of danger from fire and inspires confidence by the trust reposed. Although an experiment, after a trial of some months we are able to commend the change.

Wherever the unpleasant and disagreeable features of restraint and confinement can be removed or alleviated the result is beneficial to the patient and to the medical officers. Liberty under proper discipline and restrictions and not the license of undisciplined and unrestricted freedom is to be advocated. Paroles for patients to visit their homes on trial are given in some institutions, but their use is not universal nor indeed so frequent as in other countries. This custom varies, as it depends entirely upon the laws existing in different States, in some of which no provision has been made for the exercise of this power.

In the management of asylums no subject is of more vital importance than the character of the attendants employed. A good corps of competent attendants, well qualified, and imbued with a proper spirit and interest in their work, will more than counterbalance defects of construction, or even minor errors of administration. How to obtain this desirable result has always been the study of superintendents of asylums. The low rate of wages necessarily paid in the public institutions compared with

what can be earned in other vocations, the small chance of promotion, the strict discipline enforced, the trying character of the work, and the further fact that the experience gained is but of little value in any other position of life, all tend to make the tenure of place but temporary. Another powerful element operating in this direction is the fact that the entire absence of classes in America opens wide every avenue of employment to both sexes, and that every one aspires to better his or her condition in life. To overcome these difficulties in part, an effort is being made in this country to instruct and train attendants for their duties, and thus give asylum work the prominence and position of a skilled vocation. After systematic training there is an increase of wages which with the advantages indicated, it is hoped will give greater permanency in place and effect the desired improvement in the service.

Spasmodic efforts to train attendants have been made from time to time in different localities, but it is only within the last three years, and in American asylums, that training schools have been established, which require a course of instruction, and grant, after a satisfactory examination, a diploma, setting forth the special fitness of the possessor for the position of attendant upon the insane. There are now a number of schools in full operation in connection with asylums in different States, and in other institutions instruction is given, in a less formal manner, in the rules and regulations and in the duties and responsibilities of attendants.

Of the full benefits of this progressive step it is too early to speak; time and experience are needed for their development. It is not too much to say that the movement receives the unqualified praise of those in the best position to form an intelligent judgment. We believe there is no exaggeration in the predictions of Dr. Stephen Smith, the Commissioner in Lunacy of the State of New York, that "within a decade no attendants will be employed in the State who have not their certificates of graduation from a training school." This effort to improve the qualifications of those in immediate attendance and care of patients, promises great benefit to the insane and marks an era in progress.

Since the establishment of training schools, the advisability of uniforming attendants has attracted more attention than ever before. The practice has been introduced to a limited extent and wherever employed has met with favor. Its advantages are more marked in the case of women attendants, as it largely reduces the cost of clothing and prevents a tendency to display

and the unnecessary expenditure of money. The uniform becomes a distinctive mark of position, and carries with it a degree of authority recognized by patients and the community, and arouses a certain *esprit de corps*, among the attendants themselves. It will, we think, win its place here, where distinctions of this character have not received general favor. The use of it in the public service and by private corporations is gradually overcoming the prejudice against it.

In the State of New York, attendants and all employes in public asylums have been placed upon the civil service list, and are subject to examination before a board organized for the purpose. This makes them State appointments and renders them entirely independent of political influence, both in appointment and continuance in place. An extension of this system would do away with the present evil existing in some States which arises from the positions of attendants being considered places of patronage for the party in power, and would increase the efficiency of the service.

In looking over the ground which we have thus cursorily traversed the first thought which occurs to all, undoubtedly is that nothing new or original is presented in this summary. This might have been expected, as the same problem is before us all, to care for and treat the same form of disease existing in the same type of humanity, and while the details may and do differ, the underlying principles and methods remain the same. The greatest credit we can claim is that we have not neglected to avail ourselves of the experience which time and labor have wrought out, and that we have applied it to the ever changing conditions which exist among us. How well this has been done we leave you to judge, promising that so far as you avail yourselves of the opportunity to visit the asylums of the country, you will cheerfully have accorded you every facility for forming an intelligent opinion.

APPENDIX No. I.

NUMBER OF PATIENTS.

<i>Institutions.</i>	<i>Census 1880.</i>	<i>Date of Last Report.</i>	<i>Number of Medical Officers.</i>
Tuskaloosa, Ala.,.....	373	.... 733	.... 3
Little Rock, Ark.,	000	.... 369	.... 3
Napa, Cal.,.....	770	.... 1,436	.... 3
Stockton, Cal.,	1,081	.... 1,486	.... 3
*Pacific Asylum, Cal.,	159	.... 159	.... 2
Hartford, Conn.,.....	145	.... 134	.... 3
Cromwell, Conn.,	5	.... 11	.... 1
Middletown, Conn.,	505	.... 1,146	.... 5
Spring Hill, Conn.,	15	.... 18	.... 1
Pueblo, Col.,	34	.... 138	.... 1
Jamestown, Dakota,	000	.... 136	.... 2
Yankton, Dakota,	28	.... 144	.... 2
Chattahoochee, Florida,.....	76	.... 192	.... 2
Milledgeville, Ga.,.....	626	.... 1,238	.... 5
Anna, Ill.,	477	.... 634	.... 3
Batavia, Ill.,.....	17	.... 26	.... 2
Elgin, Ill.,	513	.... 539	.... 3
Jacksonville,	620	.... 926	.... 4
Cook County Asylum, Ill.,....	470	.... 833	.... 4
Kankakee, Ill.,.....	88	.... 1,515	.... 5
Indianapolis, Ind.,.....	929	.... 1,587	.... 7
Independence, Iowa,	450	.... 694	.... 4
Osawatomie, Kansas,.....	197	.... 400	.... 3
Mount Pleasant, Iowa,	454	.... 544	.... 4
Blackfoot, Idaho Ter.,	000	.... 50	.... 1
Topeka, Kas.,	122	.... 508	.... 3
Anchorage, Ky.,	377	.... 713	.... 3
Hopkinsville, Ky.,.....	438	.... 576	.... 3
Lexington, Ky.,	589	.... 599	.... 3
Jackson, La.,.....	210	.... 597	.... 2
*New Orleans, La.,	145	.... 145	.... 1
Augusta, Maine,.....	403	.... 528	.... 3
Catonsville, Md.,	343	.... 418	.... 2
Mt. Hope, Balto., Md.,	352	.... 484	.... 2
Bay View, Md.,	199	.... 250	.... 1
Boston, Mass.,	169	.... 231	.... 4
Essex Co. Receptacle, Mass.,..	59	.... 54	.... 1
Danvers, Mass.,	598	.... 763	.... 5
Northampton, Mass.,.....	439	.... 491	.... 4
Somerville (McLean), Mass.,..	155	.... 167	.... 3
Taunton, Mass.,	564	.... 663	.... 5
Worcester, Mass., (Acute,) ...	489	.... 758	.... 6
Worcester, Mass., (Chronic,)..	337	.... 398	.... 2

* No returns for 1886.

<i>Institutions.</i>	<i>Census 1880.</i>	<i>Date of Last Report.</i>	<i>Number of Medical Officers.</i>
Ionia, (Crim.) Mich.,	000	95	2
Kalamazoo, Mich.,	658	790	5
Pontiac, Mich.,	410	637	5
Traverse City, Mich.,	000	429	4
Rochester, Minn.,	82	605	3
St. Peter, Minn.,	626	874	3
*Deer Lodge City, Mon. Ter., ..	44	44	1
Tewksbury, Mass.,	226	367	2
Jackson, Miss.,	387	417	2
Meridian, Miss.,	000	213	2
Fulton, Mo.,	507	552	4
St. Joseph, Mo.,	195	397	3
St. Louis, Mo.,	366	523	3
*St. Vincent, Mo.,	132	132	1
Lincoln, Neb.,	160	374	3
Reno, Nev.,	000	161	1
Concord, N. H.,	288	328	3
Keene, N. H.,	000	4	1
Essex Co. Asylum, N. J.,	243	383	3
Morristown, N. J.,	549	856	5
Trenton, N. J.,	502	646	3
Auburn, Crim., N. Y.,	141	201	3
Binghamton, N. Y.,	000	936	3
Buffalo, N. Y.,	000	398	3
Brigham Hall, Canandaigua, N. Y.,	62	62	3
King's County, Flatbush, N. Y.,	773	1,416	4
Middletown, N. Y.,	185	411	3
Bloomington, City, N. Y., ...	202	272	6
Ward's Island, New York City, N. Y.,	1,149	1,691	12
Emigrant Asylum, New York,	114	20	1
Hudson River Hospital, Pough- keepsie, N. Y.,	246	425	4
Erie County Asylum, Buffalo, N. Y.,	270	371	1
Monroe Co. Asylum, Rochester, N. Y.,	210	258	2
Onondaga County Asylum, Syracuse, N. Y.,	111	114	1
Marshall Infirmary, Troy, N. Y.,	98	86	1
Queen's Co. Asylum, N. Y., ..	104	115	1
Utica, N. Y.,	595	574	5
Sanford Hall, Flushing, N. Y.,	32	22	1
Willard, N. Y.,	1,513	1,818	8
Providence Asylum, Buffalo, N. Y.,	90	150	1
Blackwell's Island, New York City, N. Y.,	1,294	1,709	10

* No returns for 1886.

<i>Institutions.</i>	<i>Census 1880.</i>	<i>Date of Last Report.</i>	<i>Number of Medical Officers.</i>
Hart's Island City, N. Y.,.....	301	.... 600	.... 3
Homeop. Hosp. City, N. Y.,..	150	.... 150	.... 1
Randall's Island, New York City, N. Y.,	126	.... 132	.... 3
Goldsboro, N. C.,.....	000	.... 169	.... 0
Morganton, N. C.,	000	.... 307	.... 2
Raleigh, N. C.,.....	269	.... 248	.... 3
Longview, Carthage, Ohio,..	637	.... 734	.... 3
Sanitarium, Cincinnati, Ohio,..	45	.... 54	.... 2
Cleveland, Ohio,.....	624	.... 625	.... 4
N. W. Asylum, Toledo, O., ...	129	.... 125	.... 1
Columbus, O.,.....	871	.... 904	.... 5
Dayton, Ohio,	583	.... 592	.... 4
Oxford Retreat, Ohio,.....	00	.... 25	.... 0
Salem, Oregon,.....	262	.... 437	.... 3
Danville, Penna.,.....	454	.... 846	.... 4
Dixmont, Penna.,.....	549	.... 587	.... 4
Harrisburg, Penna.,.....	413	.... 461	.... 5
Norristown, Penna.,	000	.... 1,496	.... 6
Friend's Asylum, Philadelphia, Penna.,.....	90	.... 102	.... 2
Penna. Hospital, Philadelphia, Penna.,.....	370	.... 378	.... 5
Phila. Hospital, Philadelphia, Pa.,	973	.... 268	.... 3
Warren, Penna.,.....	000	.... 658	.... 3
Butler Asylum, Providence, R. I.,.....	164	.... 168	.... 3
Cranston, R. I.,.....	228	.... 425	.... 2
Columbia, S. C.,.....	420	.... 647	.... 3
Knoxville, Tenn.,.....	000	.... 206	.... 2
Nashville, Tenn.,.....	385	.... 402	.... 2
Austin, Texas,	350	.... 594	.... 3
Terrell, Texas,	000	.... 267	.... 2
Brattleboro, Vt.,.....	454	.... 450	.... 3
Petersburg, Va.,.....	267	.... 436	.... 3
Staunton, Va.,.....	463	.... 627	.... 4
Williamsburg, Va.,.....	323	.... 402	.... 3
Government Asylum, Washing- ington, D. C.,.....	860	.... 1,267	.... 6
Fort Steilacoom, Washington Territory,	91	.... 164	.... 1
Weston, West Va.,	394	.... 676	.... 4
Mendota, Wis.,.....	533	.... 531	.... 3
Winnebago, Wis.,	473	.... 669	.... 4
Milwaukee, Wis.,	208	.... 325	.... 2
Totals, (Asylums, 121,)...	39,093	61,411	377

Enlarged and perfected from table in the International Record of Charities and Corrections for April, 1887.

APPENDIX No. II.

The following is the list of new State Asylums organized since 1880:

		<i>No. of Patients.</i>
Arkansas,	Little Rock,	369
Dakota,	Jamestown,	136
Idaho,	Blackfoot,	50
Michigan,	Traverse City,	429
Michigan,	Ionia,	95
Mississippi,	Meridian,	213
Nevada,	Reno,	161
New York,	Binghamton,	936
New York,	Buffalo,	398
North Carolina,	Goldsboro,	169
North Carolina,	Morganton,	307
Pennsylvania,	Norristown,	1,496
Pennsylvania,	Warren,	658
Tennessee,	Knoxville,	206
Texas,	Terrell,	267

Number of patients accommodated at the close of
the fiscal year for 1886, 5,890

APPENDIX No. III.

TABLE showing number of days women were employed, kind of work done, and average per cent daily, in each month from September 30, 1885, to September 30, 1886.

LABOR.

MONTH.	Ward work.	Dining room.	Laundry.	Sewing.	Mending.	Knitting.	Embroidery.	School.	In centre.	Care of room and person only.	Total days' work.	Total days of patients per month.	Per cent employed.
1885.													
October,	549	492	757	404	448	237	208	317	92	282	3,504	4,974	70 +
November,	498	505	726	391	493	259	194	100	70	295	3,236	4,682	69
December,	541	516	802	509	537	282	250	...	83	304	3,320	4,888	72
1886.													
January,	538	498	746	535	450	299	228	116	63	318	3,473	4,966	69
February,	501	457	609	513	364	238	212	279	61	263	3,234	4,554	71
March,	526	512	753	523	448	262	243	285	64	272	3,616	4,597	78
April,	533	484	749	485	412	258	231	259	73	276	3,484	5,096	68
May,	531	471	901	457	402	231	203	224	92	277	3,512	5,096	68
June,	552	489	864	457	369	220	219	366	64	298	3,600	4,866	73
July,	558	503	976	527	410	131	226	293	65	301	3,689	5,286	69
August,	569	525	887	567	453	122	271	370	73	302	3,837	5,411	70
September,	528	584	963	510	382	148	218	469	61	261	3,863	5,378	71
Total,	6,424	6,036	9,733	5,878	5,168	2,687	2,703	3,078	861	3,449	42,568	59,794	71 +

Sundays are omitted. In figuring percentage employed, "care of room and persons" is deducted.

TABLE showing number of days men were employed, kind of work done, and average per cent daily in each month, from September 30, 1885, to September 30, 1886.

LABOR.

MONTH.	Barn, lawn, and farm	Engineer and firemen.	Carpenter.	Painting.	In kitchen and laundry, with laundry cart, office boy and supervisor.	Tailor and shoe shop.	Ward work.	Dining room.	Unclassified out-door work.	Unclassified in-door work.	School.	Care of room and person only.	Total days' work.	Total days of patients per month.	Per cent employed.
1885.															
October,.....	1,462	86	15	60	500	26	517	340	526	245	22	26	3,499	4,783	73 +
November,.....	624	104	36	66	450	18	504	330	681	231	2	24	3,136	4,421	70
December,.....	568	117	45	62	476	32	971	531	558	339	....	27	3,759	4,501	83
1886.															
January,.....	277	127	41	40	472	20	942	526	486	481	82	26	3,494	4,611	75
February,.....	268	83	22	60	336	20	801	446	461	472	174	98	3,145	4,193	75
March,.....	481	104	20	52	451	15	928	540	403	551	190	107	3,735	4,683	78
April,.....	833	94	12	58	428	16	1,025	518	432	375	123	69	3,915	4,583	85
May,.....	957	53	20	63	425	3	1,196	614	437	168	76	47	4,012	4,757	84
June,.....	1,054	51	22	72	448	16	963	601	564	89	38	24	3,858	4,649	83
July,.....	936	55	....	78	484	5	1,057	562	438	102	....	27	3,717	4,687	79
August,.....	939	56	37	64	475	20	1,049	516	557	141	....	39	3,854	4,826	79
September,.....	497	51	44	60	500	22	875	526	420	217	....	36	3,212	4,745	67
Total,.....	8,596	981	314	736	5,447	213	10,858	6,050	5,963	3,471	707	550	43,336	55,439	78 +

Sundays are omitted. In figuring percentage employed, "care of room and persons" is deducted.

CLINICAL CASES.

EIGHT CASES OF TREPHINING FOR TRAUMATIC INSANITY.*

BY W. B. FLETCHER, M. D.,

Superintendent of the Indiana Hospital for Insane, Indianapolis, Ind.

The traumatic form of insanity is admitted into a few of the various classifications. A thorough research shows less than a dozen cases tabulated in this country treated by surgical interference, although many have doubtless escaped notice, or never been recorded.

Dr. W. T. Briggs reports three with two recoveries. Dr. W. A. Byrd reports one with but transient improvement. Dr. L. A. Stimson reports one cured. Dr. J. L. Little reports one cured. Dr. McCormick reports one cured. Dr. J. B. Chapin reports one died. Dr. C. F. MacDonald reports one cured.

That traumatic injury at some time in life is a fruitful source of insanity in after years is doubtless true, but statistical matter upon that point is meagre.

At the Indiana Hospital for Insane 3,034 patients have been received during the four years ending June 1, 1887, of whom about four per cent have injuries of the head given as a cause, or give evidence of such injury.

It is singular how little attention has been given to tabulating the number of cases in American hospitals where the cause is attributed to injury. I believe injury to the cranial bones, or inflammation of the dura, following such injury to be a most potent cause of insanity, whether the injury be sustained during childhood or adult life. Also that a blow which causes adhesions in certain localities of the inner cranium in childhood will develop insanity in adult life by causing deformity, so to speak, and loss of function of the brain itself.

Dr. Skae, of Edinburgh, and others, describe traumatic insanity as being characterized at its commencement by maniacal excitement, varying in intensity and duration, and the excitement is succeeded by a chronic condition, often lasting many years, during which the patient is irritable, suspicious and dangerous to others; that in many such cases distinct homicidal impulse exists;

*Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

that the characteristic delusions of this form of insanity are those of pride, self-esteem and suspicion—melancholia being very rarely present; that this form of insanity is rarely recovered from, but has a tendency to pass into dementia and to terminate fatally by brain disease.

From my own observation, I think that in almost all the cases of injury followed by insanity there was a period of unconsciousness lasting a few days or weeks and final recovery; then, as years passed on, either epileptic insanity developed or insanity without epilepsy.

The following which I report briefly will show the treatment of eight cases of traumatic insanity and the results. Three of these cases have been reported in the *AMERICAN JOURNAL OF INSANITY*:

I.—W. P. H., was admitted to the Indiana Hospital for Insane, March 5, 1884. He is a white, American born, thirty-five years old, five feet five inches in height, weighs one hundred and fifty pounds, has auburn hair, face florid, and has the peculiar epileptic look.

His family physician says: "I have treated Mr. H. for traumatic insanity, caused no doubt, by a fall from a scaffolding six years ago; patient is sleepless; at times perfectly rational, at others exhibits strong suicidal mania, and treacherous homicidal proclivities, some times so violent that he must be tied down. There is a depression of bone on the left parietal near the osculation of the right parietal and the occipital. He has lost his memory, and since the accident has had epileptic convulsions, and has become an inebriate and a morphine taker."

Upon the admission of the patient to the hospital, it was found that besides the use of alcoholic stimulants, he had for years taken large doses of morphia to allay the intense pain which he suffered, at all times in some degree, always increased in the evening and fluctuating with atmospheric changes. The morphine was not entirely discontinued when he came to the hospital because his suffering was something intense, and his ravings and excitability could only be controlled by that drug.

After a month's treatment, a careful examination of his head was made, showing evidence of an old wound on the left side of the cranium corresponding to the portion which covers the lower third of the left occipito-parietal fissure and upper parietal convolution. The depression was quite perceptible both to sight and touch; the scalp was bald over the space of a silver dime, and

in the margin were two or three small sinuses, closed by dried pus.

Upon trephining, we found the margin about the depressed bone much elevated by additional layers of new bone growth, which caused the depressed portion to appear as if sunken a quarter of an inch below the level of the cranium, but in reality it was about equal to half the natural thickness of the skull. With an elevator I got a purchase upon the outer table through the small opening of the sinus before mentioned. With considerable effort I lifted this table from the inner one, which had a roughened black appearance. The diploe was in a necrosed condition. The lower fragment or internal table was immovable, and seemed as firmly fixed as the normal skull. The sinuses did not enter through the internal table. With a chisel I proceeded to cut out the depressed portion, which nature seems to have re-enforced by thickening the margins of the bone below. The removal extended to the depressed bone and the thickened margin, exposing the brain at this part the space of a circle one inch in diameter. Over this wound the flaps of the scalp were drawn by three or four stitches, and dressed with cold water dressing. The patient awoke from the chloroform with some sickness of the stomach, which half a grain of morphia allayed. He rested tolerably well, and found to his delight next morning that he was free from the pain and abnormal mental condition which had been his constant companion for years, since the moment of his fall from the house-top.

There was nothing peculiar about his treatment from that day until he left the hospital, on the 20th of September following. Two doses of morphia within twenty-four hours, was the only medicine taken, and on the third day Mr. H. was up and about. The wound healed kindly, and as for the surgical part of the case it ended here.

II.—J. G., of Marion County, Indiana, native of England, admitted to the hospital July 30th, 1885, age forty-seven; machinist.

Three years before admission was struck on the head by a stove-lid lifter. He was taken home in an unconscious condition, and so remained for six hours, and confined to his bed for several days; he was soon able to resume his work, which he continued to do after a fashion for six months. From this time on he became negligent, careless about his clothing, with lack of interest in anything, finally melancholy and suicidal. August the 21st, he

was put under the influence of chloroform, and a careful examination made which showed a small scar not larger than a grape seed over the parietal suture, an inch and a half from the coronal; a triangular flap was made, the scalp was found adherent to a very slight depression in the skull about one-fourth of an inch to the left of the centre; I attempted to enter the point of the trephine into this depression, when a stream of blood gushed forth steadily, causing me to desist. The chisel was then taken in hand and a few blows with the hammer speedily dislodged the surrounding bone to the extent of half an inch wide by one inch long; a spicule of the internal table was found puncturing the dura, which corresponded in size and shape to a headless carpet tack. Water dressings and a bandage were the only applications to the wound, which healed by first intention; the patient was about the third day, and went home on the seventh day, "a new man," as he expressed it, and has been able to continue his work as a stove moulder from that time. It is now nearly two years since this man was discharged; he has been perfectly well and worked at his trade constantly.

III.—Henry Stevens, age twenty-three; American; was admitted to the hospital from the State prison where he had served a term of three years. The following letter from the Warden gives all the history we have regarding the case:

"Admitted to prison from White county; burglary; four years; age seventeen; single; weight 149 pounds; scar on left hand; bad scar on top of head; skull has been broken. While in the prison he was kept in his cell; never talks or moves."

Patient was admitted to the Indiana Hospital for the Insane October 17, 1882; age twenty; diagnosis, dementia.

The observations made by physicians and attendants agree that he was dull, melancholic, slow to comprehend, countenance pale. Sits constantly with eyes turned downwards and lids nearly closed, as if to avoid the light; sometimes picks his clothing to pieces; is not filthy. If spoken to sharply he has been known to answer by a word or two, but irrelevant to the question. This has been known to occur twice or thrice in three years.

February 15, I trephined over a well-marked depression beginning at the middle and in front of the coronal suture where it was deepest (one-quarter inch) and extending obliquely backwards and downwards on the anterior left parietal, being two inches long and one inch wide. The depression in the frontal portion was one-quarter inch and faded away in the lower portion to a level

with the normal bone. The depressed bone removed was two inches long by one in width.

Upon coming from under the influence of the ether, he said, "I want to vomit." In four hours he called for the urinal and spoke clearly: "You said they would have to operate." The second and third day he spoke occasionally, saying "I'm tired," "I'm too tired," "I want a drink." When given a drink of water, some fluid extract of digitalis having been in the same glass, he remarked, "It tastes more like medicine than water." On the fourth day I said, "Henry, do you want an apple?" The answer came quickly, "Yes, I will eat it too, you bet." I asked him, "Why don't you answer whenever you are spoken to, Henry?" In a moment he answered quickly, as if wishing to be through with the task, "A man should consider before he speaks." At another time he spoke to the attendant for some neglect, saying, "I will report you to Mrs. D., and give you a smack on the gob."

It is now more than eighteen months since the operation, and the patient is improving in his ability to talk, walk and care for himself; he is morose, however, and profane. The only fear I have is that there may be some counter-fracture or adhesion at the base of the skull.

IV.—M. C., age forty-four; melancholy; was injured during the war by a fragment of a bursting shell; there was a deep scar one and one-half inch long, vertical, centre of the left parietal. To the touch it seemed like a groove cut in the bone; this deception is frequent; so dense is the granulation directly upon the bone, and so hard and thick the everted edges of the scalp that the impression is conveyed that depressed bone will be found.

Trephining, an incision was made, the scalp reflected, but found no depression of bone, so did not operate. The patient, however, improved decidedly; the pain and nervousness disappeared. He now works out on the grounds with the gardener, is more cheerful on the ward, and his general health seems improved—he being a delicate and anæmic man at the time of operation, August 12, 1886.

V.—J. Y., age forty-one; German; admitted September, 1882; was struck on the frontal bone, just a little left of the median line when a child twelve years of age.

The depression was half an inch deep, one and one-half inch long, and one inch in width. Patient was part of the time quiet and quite rational; at other times violent in the extreme; homicidal and suicidal when these maniacal seizures occurred.

Trephined August, 1886; removed depression as above described; patient up the following day; operation had no effect whatever on the patient's mental condition.

VI.—C. E., age thirty-seven; traumatic epileptic; was struck on the head when thirteen years old with a small wagon wheel; had epilepsy when twenty years old; married at twenty-two years; in a fit of frenzy killed his two year old child by catching hold of its feet and beating its brains out. Admitted to the hospital at the age of thirty; was a violent and homicidal case; convulsions were of the most violent form, occurring five or six times a month.

Trephined March 25, 1886, but found no depression at the seat of the injury; removed a portion of the left parietal near the temporal and parietal suture about one and one-half inch in length and one inch in width. Four days after trephining the patient was able to walk about his ward; on the fifth day had a hard convulsion; two weeks later had another; from that time they became gradually farther apart, and of less violence, until at the end of six months, he would have but one a month, and at the time of his discharge (one year after the operation) he would go from six to eight weeks without a single convulsion.

Patient was, at the time of the operation, in splendid physical health; was discharged, and since leaving the hospital, some six months since, has had no convulsions.

VII.—B. H., age twenty-seven; admitted July 15, 1886; railroad engineer; destructive and suicidal; was thrown from a train during a collision on the Pennsylvania railroad about two years ago. Was injured on the head; complained of constant pain in the region of the suture of the frontal and parietal bones; scalp wound very plain to the eye; expected to find fracture, but did not. Trephined April 16; patient sat up the day after the operation; third day was up and out of doors.

As to result, patient was benefited by the operation to the extent of diminishing the duration of his "spells" of pain, but is not restored.

VIII.—J. N., age fifty; in childhood had a saw-log roll over his head, pressing from the frontal to the occipital region; from this he recovered in a few weeks. He is fairly educated; married; has several children and accumulated a good fortune for an ordinary farmer. Eight years ago he was standing in a saw mill when the boiler exploded, a fragment of iron striking him on the right side, upper anterior third of the parietal bone, pointing

toward the frontal at the junction with the parietal. From this he was unconscious for several days, but gradually recovered, and for seven years pursued his occupation on the farm. At this time he became gradually paralyzed slightly on the left cheek, while the right face, arm and hand were almost constantly thrown into muscular twitching or convulsive action.

During the year he had four distinct and severe epileptic convulsions. About six months ago speech was affected to some extent—it became thick. At this time he lost all self-control; became melancholic, listless, sometimes suicidal, and there was an intention on the part of his friends to have him committed to the hospital for the insane. I persuaded them to have him trephined at home, which was done on the 26th of May, 1887.

The dura was firmly adherent to and around the button removed from over the cicatrix; there was no visible sign of fractured bone; the dura was like a tough aponurosis, and did not pulsate. With a strong probe bent at right angles I broke up all the surrounding adhesions and then could perceive some pulsation. A button-hole slit was then made in the membrane, and a probe then passed down and inward; there was an escape of perhaps two drachms of fluid at the time. The button of bone was then replaced and slight water dressing applied. The attending physician wrote me forty-eight hours afterwards that after I left, a large quantity of yellowish fluid escaped; that Mr. N. had rested well, had no headache, no muscular twitching and no paralysis, and so continues to this date.

An examination of the foregoing cases shows that :

First: The insanity did not occur at or near the time of the injury.

Second: In three cases epilepsy preceded the insanity, but remote from the time of the injury.

Third: In all but one (number three, and that was the most extensive injury in appearance) very strong adhesions of the dura were found.

Fourth: All these patients were at the time melancholic, suicidal, profane, and four destructive to clothing; none are so now.

Fifth: I believe that in traumatic injury, in which sunstroke is included by most authorities, that the pain and reflex nervous affections most frequently arise from the inflamed and adherent dura, at points where one of the three sensory branches of the

fifth nerve is involved. In none of these cases do I think the cortex had undergone any pathological change.

In cases VII and VIII, in tearing up the adhesions, it was noticed that the face, platysma and fingers on the same side were convulsed, while a probe passed freely upon and into the convolutions without visible sign of excitement.

It would be comparatively easy to locate most injuries and diseases of the cerebrum, were it not for the complicated nervous relation of the dura mater. Regarding irritations of this membrane, Duret says: "Their varied and, so to speak, protean manifestations tend at each step to complicate the whole symptomatology by superimposing themselves in the phenomena due to lesions of the nerve centres proper.

Furthermore, that there are frequently cicatrices of the scalp from old wounds, which give the impression of depressed bone. These are sometimes sites of acute pain, causing insanity, as well as partial paralysis and convulsive phenomena, which, in reality are caused by the dural branches of the fifth nerve being involved in this external cicatrix; such I regard case number IV.

Finally. Trephining the skull, like bleeding, has been a lost art for many years. Abernethy and Benjamin Bell were among the first to call a halt in the former custom of trephining and elevating in all cases of fracture and depression, and gave their reasons by pointing out numerous cases of depression where recovery followed without this procedure. But, in view of the fact that insanity so frequently follows such injuries years afterward, I would be inclined to inculcate the doctrines of John Hunter regarding injuries of the head. He says, "as we can not tell for certain at the time whether the symptoms arise from concussion, compression or extravasation of blood, it may be more advisable to trephine, as the operation can do no more harm."

The matter of making exploratory openings into the skull through the dura, and of tapping the cortical or white substance with a probe or probe-pointed needle, as in Dr. MacDonald's case, is a safe procedure—safer, I think, than exploratory incisions into the peritoneal cavity; and doubtless, more surgical treatment in our hospitals for the insane would add to our percentage of cures.

CASE OF CEREBRAL ATROPHY WITH SUBSEQUENT CYSTIC DEGENERATION.

BY A. NELLIS, JR., M. D.,Assistant Physician, State Asylum for Insane, Willard, N. Y.

The patient in whom the brain presented the lesions which form the subject of the present notes was a male, J. H., admitted into Willard Asylum for the Insane, October 29, 1869, having been removed from a county almshouse where he had been kept for several years.

The following was the only history of his case that could be ascertained at the time of his admission, and like all histories of patients brought from county receptacles was meagre and unreliable.

The patient was seventeen years of age, and was stated to have been idiotic and epileptic from his birth and subject to daily convulsions for some years; not filthy, destructive or violent, and had shown no disposition to injure himself or others; and there was no heredity. After his admission to the asylum, he was found to be extremely idiotic, not having the faculty of articulate speech, in fact incapable of employing any of the intellectual faculties. During his stay in the asylum more than seventeen years, his condition was uniform. He was never seen in a convulsion, but had frequent paroxysms, when he became noisy, excited and violent, and assaulted his associates from sudden impulse and without provocation. He was not able to care for himself in any way, required almost constant attendance, was never susceptible of improvement, and nothing more could be done than to feed and clothe him and keep him clean. There was no paralysis or other observable complication, and when in an excited condition he was quite active. When quiet he generally sat in one particular seat in the ward, and never fixed his attention on anything. The skin of his hands and feet was uniformly cold, and of a purplish hue, due to enfeebled circulation, this extreme lividity being more constant than that which is common in extreme dementia. The following extract from the recorded clinical notes in his case gives a fair idea of his condition as observed from day to day. "Is dull and can not speak; hands are very blue and livid and he moves about very little, unless excited, when he is noisy day and night, and assaults any one who approaches him. Sometimes has destructive tendencies when he breaks glass and furniture. Habits extremely filthy. Physical health fair." His head was somewhat

smaller than that of the average idiot, and he had the sloping forehead, swaggering gait and facial expression, characteristic of his class. He was pushed down on the floor by a fellow patient December 25, 1886, and sustained severe injury to the left hip from which he had nearly recovered, February 5, 1887, when, without evident cause, he sank into a state of stupor and died February 7, 1887.

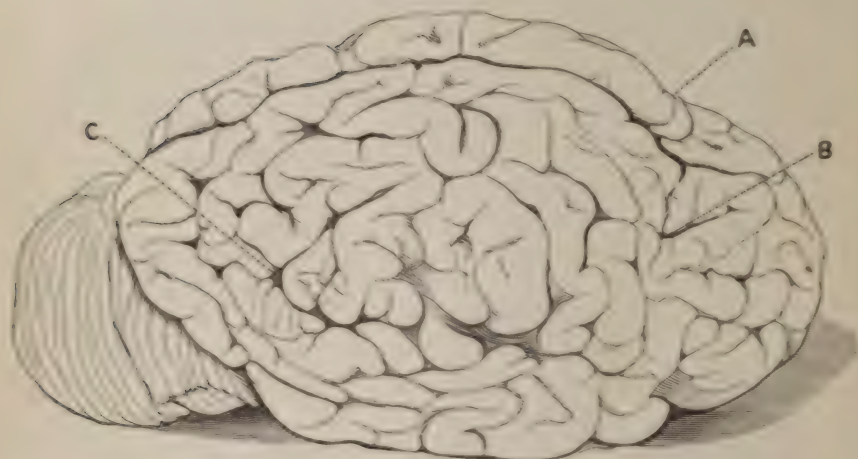
On post mortem examination the cranium was found to be abnormally thick, the diploë being almost absent; dura mater not adherent, though slightly thickened and opaque; arachnoid was œdematous. There was a large amount of subarachnoid fluid, which was compensatory, as when the convex surface of the brain was examined *in situ* there was observed a marked general shrinkage. The brain weighed thirty-three ounces. Only the coarse lesions visible to the unaided eye, were recorded. What at first appeared to be a large cyst in each frontal and the right occipital lobes, afterwards proved to be, when the pia-mater was stripped off the surfaces of the convolutions, an atrophied and depressed area. The pia covered the surface and the compensatory fluid underneath resembled a cyst. When the fluid was removed from these depressions, they were found to be of about the size of a small pear, and their inner surfaces were corrugated and resembled rudimentary or undeveloped convolutions. The nervous elements in the affected areas in the frontal lobes had undergone cystic degeneration; a cyst of the size of a small marble and several smaller ones were found in the right, and several small cysts in the left area. The affected region in the right occipital lobe had not undergone cystic change. The bottom of each cavity was separated from the lateral ventricles by tissue of about one-fourth of an inch in thickness. The ventricles were distended, and contained several ounces of fluid. The general shrinkage of the brain seemed to be due to atrophy of the white matter of the brain, as the convolutions of the motor centres and all not included in the affected regions, were well developed and not deficient in gray matter, and their sulci were more opened and distinct, which is the case whenever compensatory fluid is present. No other lesions were found.

The affected areas are shown in the accompanying illustrations, and include parts of the following convolutions; the middle third of the superior frontal, and the posterior third of the middle frontal, of the frontal lobes, and the posterior third of the temporo-sphenoidal of the right occipital lobe.

The writer is aware that the above case presents nothing very remarkable, and that the interest lies in the probable congenital origin of the cerebral atrophy, which subsequently underwent cystic degeneration.

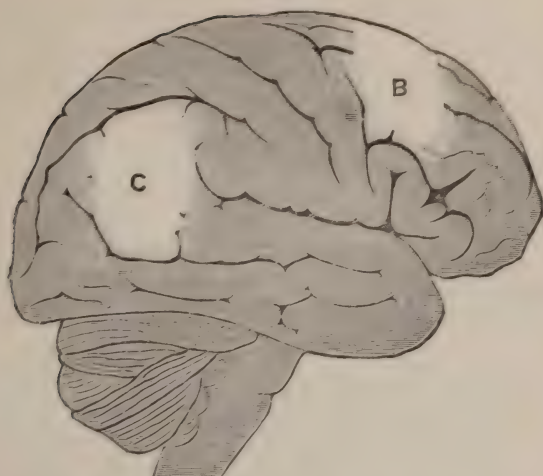
The notes, though imperfect, are offered as a small contribution to cerebral pathology, as observed in asylums for the insane.

PLATE I.



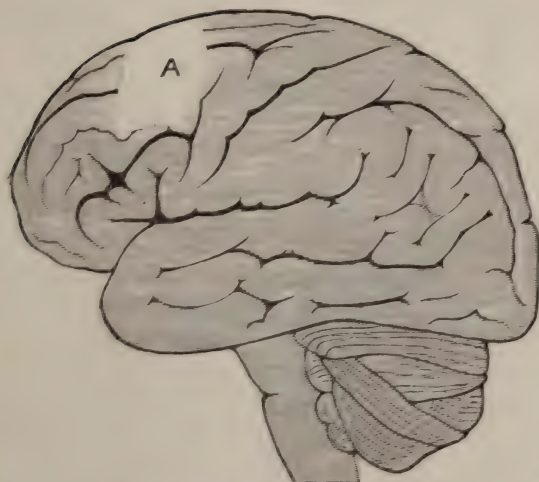
A, B and C show, approximately, the areas of degeneration. The cut is from a photograph, and does not do justice to the brain as it was found.

PLATE II



B—Site of lesion in right temporal lobe.
C—Site of lesion in right occipital lobe.

PLATE III.



A—Lesion in left frontal lobe.

MEDICAL JURISPRUDENCE.

IS THERE ANY CONNECTION BETWEEN DEAF-MUTISM AND INSANITY? THE CASE OF WALTER L. BINGHAM.*

BY EUGENE GRISSOM, M. D., LL. D.,

Superintendent of the North Carolina Insane Asylum, Raleigh, N. C.

Among the many problems which the study of insanity in all its protean phases offers for our contemplation, is its dependence or non-dependence upon the disturbance of the sensorial functions of the brain.

Much has been written of the imperfect or diseased action of the brain, as manifested through abnormal, moral or intellectual phenomena, and the question of the existence of an insanity of the purely moral faculties as contra-distinguished from those of the strictly intellectual powers is as old, perhaps, as the existence of medical science.

But it is a little remarkable that the permanent disarrangement of the perceptive powers, culminating even in the entire blocking up of one or more avenues to perception, and likewise to expression, should have received so little consideration.

We are surrounded with men isolated from their fellows by the utter destruction of certain means of communication with the objects of nature, and with other creatures outwardly like themselves, but endowed with capacities of sight and hearing and speech whose powers transcend the imagination of these unfortunate beings; unfortunate, because defective and incomplete. The question, how far the condition of the deaf mute, for example, is to be attributed to the accidental imperfections of the ordinary mechanism of the ear, and how far to the failure in transmission of the nervous impression *from* the labyrinth *to* the ordinary centres of the brain; or again the congenital or acquired insensibility of that portion of the sensorium whose function it is to respond to excitation and to register for the general notice of the brain, the reception of the sound-impulse, are matters upon which no final decision has been reached, and concerning which experiment has as yet a wide and promising field.

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at Detroit, Mich., June 14-18, 1887.

Still more would it be of interest to us to know whether the want of susceptibility in the auditory centres of the sensorium resulting in congenital or acquired deafness (and as a consequence, mutism also,) with the allied lack of employment and probable atrophy of the centres devoted to speech, is of such a character as to modify or, progressively perhaps, to alter brain action throughout the higher centres.

Is the mind the congress of all the perceptions combined by memory and will, as declared by some, and what is the influence of the absent powers upon those still existing?

Is deaf-mutism in any way allied to insanity?

Does such a condition accompany the development of insanity in family lines?

Is it in any wise among the prodromata of insanity?

Are there well-recognized phenomena in the life of the deaf-mute that indicate a low grade of intellectual ability?

Is there any record of any extraordinary genius in any department of human effort who was afflicted with deaf-mutism?

Why are the hearing mutes usually afflicted either with idiocy or more or less gradually approaching dementia?

How far does the lesion of the brain present in amnesic or aphasic subjects, indicate subtle and general degradation at least of nervous susceptibility throughout the whole cerebral system?

Many are the similar inquiries that arise from a cursory contemplation of this topic.

It would be premature at present, to offer in detail the replies of many of the most distinguished authorities in our specialty, in general pathology, in anatomical and physiological science and of those most celebrated in connection with the noble charitable institutions for the deaf and dumb, to some inquiries addressed with the object of beginning an investigation into the relations, if any, between deaf-mutism and insanity. It is sufficient to remark at present, that a greater diversity of opinions was elicited; that those who maintained the greater liability of deaf-mutes to insanity, spoke from *a priori* reasoning, and disclaimed personal experience of any facts to warrant the belief; that on the other hand, those who disbelieved that the deaf mute is liable to insane degeneration, spoke usually from clinical experience, in all cases, quite limited.

It is remarkable that while literature presents the deaf-mute in two entirely different aspects, the one as a suspicious, irritable, obstinate, visionary and passionate being, ready to succumb to

any violence of passion; and the other as a mild, harmless, modest, grateful, obedient and easily satisfied personage; most superintendents of the deaf and dumb unite in attesting the latter rather than the former as the character of these unfortunates.

It is undoubtedly true that the percentage of the deaf and dumb returned as insane is very small; but no great reliance can be placed upon any data heretofore gathered, because of the limited number ascertained, and of the additional difficulty in recognizing the obscurer forms of insanity among the deaf-mutes, and the want of familiarity with the subject on the part of those under whose charge they may be; and again from the great probability that the majority of those whose affliction passes into dementia at an early period of life, are reported among the imbecile and idiotic.

It is needless to say that this subject has its grave aspects, among which is the amenability of the deaf-mute to the penalties of the law for crime. Surely until investigation has proceeded further in this direction, our criminal jurisprudence is sadly incomplete.

We give the following history as a suggestive illustration:

On the 16th of December, 1886, Walter L. Bingham, a deaf-mute, residing in Orange county, N. C., was in the city of Raleigh, N. C., and in the evening called at the North Carolina Institution for the Deaf, Dumb and Blind, and spent some hours with Miss Lizzie B. Turlington, the matron of the deaf-mute department, to whom he was engaged to be married. On the morning of the 17th December he went to Mr. R. E. Parham's livery stables and hired a horse and buggy for a drive. On the same morning he was seen by Mr. R. T. Gray, one of the trustees of the said institution, at 9.45 o'clock, on Hillsboro street, in a buggy with Miss Lizzie B. Turlington, going west. On the road just west of the city both Bingham and Miss Turlington were seen in the buggy by a gentleman who knew both of them well. Late in the forenoon of the same day they attracted attention by their sign language, as they drove through Cary, a small town eight miles west of Raleigh. At or about noon they likewise attracted attention while driving through Morrisville, a small town twelve miles westwardly from Raleigh. This was the last time they were ever seen together. About one hour and a half later Bingham was seen alone, driving rapidly through the same town, going in the same direction as he was when Miss Turlington was with him. Bingham was well known at the Deaf, Dumb and Blind Institution, having been a

pupil there, and his friends there knew of his long attachment and recent engagement to Miss Turlington. On their failure to return to the institution in the afternoon their friends began making some inquiries, and the fact was soon elicited that on the previous day Bingham had procured a marriage license for himself and Miss Turlington. It was then thought that they had married and gone on a bridal tour, and in fact the city paper published it as an elopement, but expressed surprise at it, for it was stated that their engagement was known among their friends and families, and there was no objection to its consummation.

But on Sunday, December 19th, when it was known that Bingham had driven into Durham alone late in the afternoon of December 17th, and had purchased a ticket for himself only, intense apprehensions at once prevailed. The chief of police went immediately to Durham and there found a horse and buggy which Mr. Parham identified as the one which he had hired to Bingham on the 17th. It was further learned that Bingham had inquired the route to New Orleans. Telegrams were at once sent in all all directions for his arrest, and the community at once began the search for Miss Turlington's body. The community was thoroughly aroused. The affair was the theme of excited conversation. The officers and great bodies of men penetrated every nook and corner of the woods and fields around Morrisville, but no tidings were received until Friday, December 24th, 1886, just one week from the day on which she was last seen, the dead body of Miss Turlington was found by Frank Marsh, a colored man, at a point about three-fourths of a mile west of Cary. The coroner, Ruffin B. Ellis, held an inquest over the body of Miss Lizzie B. Turlington, and the jury found that the deceased came to her death by a pistol shot wound, through the head, as the jury believes, at the hands of Walter L. Bingham. At the inquest Frank Marsh, being duly sworn, said: "I was going from my house to Mr. Wiley Buncom's on Friday, December 24th, 1886, a distance of three-fourths of a mile, when within about four hundred yards of Mr. Buncom's I saw some buzzards fly up, and on going near the place I saw it was a dead body."

The body was identified by Mr. W. J. Young, superintendent, and by Messrs. R. T. Gray and C. D. Heart, trustees of the Deaf, Dumb and Blind Asylum. Her remains were turned over to her brothers, who took them to their parents' home in Wilmington.

It seems that immediately after passing through Morrisville the first time, that Bingham turned into an old ridge road (which is little

used and which runs parallel with the main Raleigh road) and drove in the direction of Raleigh a distance of about three and one-half miles to the place where the body was found, and which place is described by one of the witnesses at the inquest as follows, to wit: "The point where the body was found, on the west side of a seldom used ridge road, which leaves the road between Morrisville and Cary, at a point three-fourths of a mile west of Cary, about one hundred and fifty yards from the house of Wiley Buncom. The distance from Buncom's house to the point where the body was found was about four hundred yards and the direction northeast. The point is nearly midway between the North Carolina railroad and the Raleigh and Augusta railroad. The road through the lane from Buncom's ascends a hill with fields on either side. At the top of the hill are woods of small oaks and pines. At the highest point on this ridge road was a pool of coagulated blood, about eleven feet on the northeast of the road; part of the blood was on a rail. On a fallen limb of a tree were pieces of fur trimming of a cloak or muff. A disturbance of the leaves down the slope of the hill into a little depression in the woods indicated the way to the place where the body lay—in a few feet of the deepest part of the hollow, about seventy-six yards from the blood. Across the road from the place where the blood was visible, was a small post oak tree, about thirty feet from the road. To this a horse had been hitched, as the pawed earth indicated. The tracks of a buggy were plainly visible, and also dry mud upon the bodies and limbs of little saplings, over which a buggy turned aside from the road and stopped at the post oak tree, as it was turned out of and into the road. Within ten feet of this tree was the lap or top of an oak tree. Behind a limb of this, as it lay on the ground, was found a hat of brown straw and a lady's reticule. In the road between the tree and the place where the blood was visible were pieces of black fur like that of a muff or cloak trimming, and exactly the same as that of the dead woman's muff and cloak trimming."

The examination of the body by the coroner of Wake county was only superficial. When the remains arrived at Wilmington a more extensive examination was made by the family physician of the deceased; and I learn from our solicitor that the examination disclosed the fact of an unsuccessful attempt at outrage. Notwithstanding the fact that on taking the train at Durham on the 17th December Bingham inquired the route to New Orleans, and purchased a ticket to Charlotte, he turned Northward at Greens-

boro, and two days later turned up at the Deaf and Dumb Asylum in Carmesville, N. Y., where he was known, having at one time been a pupil at that institution. He was restless and excited, and told his friends that he was on his way to Council Bluff, Iowa, to kill a rival of his, Prof. Goodwin, who had formerly taught at the Raleigh asylum. A day or two afterwards he was recognized by an acquaintance, in New York. That is the last that has been heard of him, notwithstanding large rewards have been offered for his apprehension.

HISTORY OF BINGHAM.

He was born August 14th, 1863; lost his hearing from severe cold in the spring of 1865. At the age of five years had scrofula; was under the medical treatment of Dr. E. Burke Haywood for several months, who thought he had eradicated the disease from his system, as he was so young. When nine years old he had an attack of typhoid fever; after his recovery he seemed to be in good health for several years. At sixteen years of age he had measles and took cold—catarrh in his head developed soon after in a slight form. In the fall of 1881 he met with a severe railroad accident—was thrown by the engine about twenty feet up into the air and fell on his forehead; was taken up in an unconscious state. From that accident his family dates the beginning of his ill health. As soon as he recovered from the accident he returned to the institution in New York, where he had been at school the previous year. Upon his return home, June, 1882, it was noticed that his catarrh had developed into a serious condition, and he again consulted Dr. E. Burke Haywood, who found it such a serious and complicated case that he did not like to undertake the treatment of it, but advised him to seek the treatment of a specialist, Dr. Beverley Robinson, of New York city. He was in New York under Dr. Robinson's constant treatment and care from November, 1882, until the summer of 1884; spent the summer of 1883 at the White Sulphur Springs under Dr. Robinson's directions, returning to New York again October 1st. The summer of 1884 he spent at the Buffalo Lithia Springs, Va.; was quite sick there with kidney and bladder trouble, returned home so thin and emaciated that his family thought he could not live many days. He consulted Dr. Haywood as soon as he could travel, who prescribed for him and sent him to Waynesville White Sulphur Springs in Haywood County, N. C. He returned home about Christmas much improved in health. He continued

in apparent good health until August 1885, when he came in from a horseback ride very much heated, in a profuse perspiration, and jumped into a cold plunge bath—the shock to his system brought on congestion of the heart and lungs. Dr. Gunter called Dr. Strudwick, of Hillsboro, in consultation—for several hours his life was despaired of; he rallied, but the attack left the action of his heart feeble, and he was under the doctor's treatment for some time until he was able to travel to the mountains, where his strength returned. From the fall of 1885 till September, 1886, he seemed to be in moderate health, but all the time he was keeping up Dr. Robinson's prescriptions for his catarrh, and was under Dr. Gunter's treatment for his general health. He was kept up on strong tonic treatment, using cod-liver oil, iodized syrup of horseradish, hypophosphites, porter, &c. His health declined rapidly after the season for curing tobacco began. It was thought that he injured himself by his exposure to the heat in the tobacco barns. He insisted on helping to cure the tobacco, although he had an hired expert curer. While this work was in progress he would go into the house and ask his mother why he had such a pressure on his chest; she would tell him that the curing of that tobacco caused it.

His mother says that she noticed his mind was failing about the first of October, 1886, but that the servants and the friends visiting her began as early as September to fear that his mind was not right. She says, "I noticed first that there was a great change in the expression of Walter's eyes—a dull, listless look that worried me, as he always had such a bright, intelligent countenance; and soon after he began to lose all interest in his affairs on the farm. Three weeks before he left us he became very much depressed; would sit around my fire and gaze into the fire, but I could not get him interested in reading as he usually was. About two weeks before he left he began to have chills and fever, which reduced him very much, and caused loss of appetite, so he took little nourishment. He complained of torpidity of the liver, restlessness, could not sleep at night, and the last two or three days would frequently ask about his pulse; said that he felt that he had high fever, and would lie on the bed most of the day. We feel sure *now* that that fever was the beginning of the end, but we could not foresee it. About three weeks before this Walter told us he 'felt like his catarrh had eaten a hole through his head, and he feared it would finally craze or kill him.'

Dr. Robinson says that was no delusion on his part, but a fatal

symptom, and one described by other patients just on the eve of committing suicide. Dr. Robinson has a full account of Walter's case reported in some medical journal, as it was a *serious, critical* case, and he called in several of his medical friends to consult as to the treatment. He told Major Bingham and myself when we visited Walter in January, 1883, that all our hope was in building up his constitution to enable him to resist the disease. Dr. R. told my son in January, 1887, when he went on to see him, that 'it had ended as he feared'—that his body was so frail that he thought it would give out first, but he knew it would attack his brain at last if his body lasted."

Bingham had been in love with Miss Turlington for a number of years, but had only succeeded in gaining her consent to an engagement in August, 1886, when she is said to have promised to marry him in January, 1887. Early in December she decided to postpone the marriage until June, 1887. Her reason was that her resignation in the middle of the session would put the board of trustees to some inconvenience. Bingham was very reluctant to consent to the postponement but finally yielded to her wishes, and wrote a letter to her mother to that effect. After the matter was decided Miss Turlington seemed happier, and fonder of Bingham than ever before. Only the day before her murder she spoke of her delight at his willingness to make the sacrifice on her account.

PROCEEDINGS OF THE PSYCHOLOGICAL SECTION
OF THE NINTH INTERNATIONAL MEDICAL
CONGRESS, HELD AT WASHINGTON,
D. C., SEPTEMBER 5-10, 1887.

The first meeting of the Psychological Section of the Ninth International Medical Congress was held at three P. M., Monday, September 5, 1887, at Washington, D. C. The session was opened by the President of the Section, J. B. Andrews, M. D., of Buffalo, N. Y., E. D. Ferguson, M. D., of Troy, N. Y., and G. Alder Blumer, M. D., of Utica, N. Y., acting as Secretaries.

The following gentlemen were present during the sessions:

Dr. J. B. Andrews, President, Buffalo, N. Y.; Dr. E. D. Ferguson, Secretary, Troy, N. Y.; Dr. J. H. Hinton, New York; Dr. D. R. Brower, Chicago, Ill.; Dr. Henry M. Hurd, Pontiac, Mich., Vice President and Member of Council; Dr. H. Wardner, Anna, Ill.; Dr. S. S. Schultz, Danville, Pa., Vice President; George H. Savage, M. D., F. R. C. P., London, England, Vice President; Dr. J. Willoughby Phillips, Burn Brae, Pa.; H. G. Brainard, M. D., Los Angeles, Cal.; Dr. Ernest Otto, Munich, Bavaria; Dr. E. A. Homen, Helsingford, Finland, Vice President; Dr. Emil Homberg, Helsingford, Finland; Dr. Walter Hay, Chicago, Ill., Member of Council; G. Fielding Blandford, M. D., F. R. C. P., London, England, Vice President; Dr. F. W. Russell, Winchenden, Mass.; Dr. F. M. Sandwith, Cairo, Egypt; Dr. David Bower, Bedford, England; Dr. Emily H. Wells, Binghamton, N. Y.; Dr. E. T. Shepard, New Orleans; Dr. F. Pritchard Davies, Maidstone, Kent, England; Dr. Jno. B. Chapin, Philadelphia, Pa.; Dr. Alfred Aplin, Nottingham, England; Dr. Francis X. Dercum, Philadelphia, Pa.; Dr. G. Alder Blumer, Utica, N. Y., Secretary; Dr. Jos. Neville, London, England; Dr. E. N. Brush, Philadelphia, Pa., Member of Council; Dr. Hans Laehr, Schweizerhof, Germany, Vice President; Dr. Irving C. Rosse, Washington, D. C.; Dr. W. W. Godding, Washington, D. C., Vice President; Dr. H. B. Williams, Little Rock, Ark.; Dr. J. Stewart, Montreal, Que.; Dr. E. [E.] Duquet, Longue Pointe, Que.; Dr. Robert H. Porter, Louisville, Ky.; Dr. Wildermuth, Wurtemberg, Germany, Vice President; Dr. J. W. Beaumodiel, Paris, France; Dr. Francis N. Beaman, New London, Conn.; Dr. F. W. Harmon, Cincinnati, Ohio; Dr. W. S. Lindsay, Topeka, Kansas; Dr. P. Bryce, Tusca-

loosa, Ala., Vice President; Dr. O. J. Hollenbeck, Canandaigua, N. Y.; Dr. F. R. Pratt, Manchester, England; Dr. Francis P. Griffith, LaGrange, Ind.; Dr. H. S. Hurd, Galesburg, Ill.; Dr. F. C. Ard, Baltimore, Md.; Dr. C. F. MacDonald, Auburn, N. Y., Member of Council; Dr. George Brown, Barre, Mass.; Dr. Simon Tucker Clark, Lockport, N. Y.; Dr. Theodore W. Fisher, Boston, Mass., Vice President; Dr. Walter Channing, Brookline, Mass.; Dr. E. C. Spitzka, New York, Vice President; Professor A. Mendel, Berlin; Dr. Philip S. Roy, Washington, D. C.; Dr. Gustavus Eliott, New Haven, Conn., Member of Council; Dr. C. H. Hughes, St. Louis, Mo., Vice President; Dr. Floyd S. Crego, Buffalo, N. Y., Member of Council; Dr. Edward P. Thwing, Brooklyn, N. Y.; Dr. A. J. Dalrymple, Baltimore, Md.; Dr. J. B. Gibson, Cowansville, Can.; Dr. J. G. McDowall, Sheffield, England; Dr. E. O. Bennett, Wayne, Mich; Dr. W. J. Scott, Cleveland, Ohio; Dr. S. S. Ashmore Noakes, Nice, Italy; Dr. C. M. Finch, Columbus, Ohio; Dr. Daniel Clark, Toronto, Ont., Vice President; Dr. Henri Formad, Philadelphia, Pa.; Dr. Vera Bory, Philadelphia, Pa.; Dr. J. Z. Gerhard, Harrisburg, Pa.; Dr. W. M. Knapp, Lincoln, Neb.; Dr. W. W. Alleger, Washington, D. C.; Dr. D. Yellowlees, Glasgow, Scotland; Dr. R. H. Chase, Norristown, Pa., Vice President; Dr. H. V. Harris, Philadelphia, Pa.; W. J. Mickle, M. D., F. R. C. P., London, Eng., Vice President; Dr. A. B. Richardson, Athens, Ohio; Dr. Charles H. Nichols, New York, Vice President; Dr. Richard Gundry, Baltimore, Md.; Dr. E. D. Girtstrom, Hermosand, Sweden, Vice President; Dr. T. G. Morton, Philadelphia, Pa.; Dr. Andrew J. Ourt, Philadelphia, Pa.; Dr. Horace G. Hopkins, Willard, N. Y.; J. Langdon Down, M. D., F. R. C. P., London, England, Vice President; Dr. Stephen Smith, New York; Dr. P. M. Wise, Willard, N. Y., Member of Council.

The President, Dr. Andrews, read the opening address: "The Distribution and Care of the Insane in the United States." (See page 192.)

At the conclusion of Dr. Andrews' address Dr. J. G. Blandford read for Dr. D. HACK TUKE, London, England, a paper entitled "The Various Modes of Providing for the Insane and Idiots in the United States and Great Britain, and the *Rapprochement* between American and British Alienists in regard to the employment of Mechanical Restraint."

Discussion was had on that portion of Dr. Tuke's paper relating to the question of mechanical restraint.

Dr. SAVAGE said: I have always felt most strongly that the

question of restraint or non-restraint depended solely or should depend solely upon the physician. If a man be properly trained to supervise patients and attendants it is for him to judge and act according to his deliberate judgment—not in the hasty way that within a month I have heard a doctor say he would act; that rather than restrain a man who threatened to tear out his eyes he would prefer that the man succeeded in his purpose. The sooner such an ideal as that is destroyed the better. In direct relationship with civilization in a country is the humanity with which insane patients are treated. My friend and travelling companion to America, Dr. Sandwith, who has recently been in charge of the reforms in some of the hospitals in Egypt, tells me details that you would scarcely believe; of chains, of manacles, of every conceivable form of mechanical restraint that he within the last three or four years has destroyed in Egypt. Just before I left London a patient was brought from an island in the south of Europe. He had been an excited patient, and while there had been thrust into a kennel into which daily a modicum of food had been served to him. The civilization of the people was far below the civilization of Europe and America, hence the humanity was defective. Just before coming to America I attended a meeting at which this question was treated. One young doctor—we considered that he had the enthusiasm of youth with its faults—considered that Conollyism was the only principle that was to be preached. He would have open doors, no restraint, nothing but freedom. Now it is all a question of degree. If you are to have no restraint on any condition, if you are to have open doors everywhere why send patients to asylums at all? It is but for the preservation of society, for the patient's good and for society's good that he must be secluded, and it is for the physician to decide how he is to be restrained. It is always well to have high principles, but I suppose none of us quite lives up to his principles. But it is better to aim high, and therefore the old principle of non-restraint should be preached though not always necessarily practiced. My opinion is this: When you have to deal with attendants—and they are of course our right hands in the treatment of the insane to a great extent—it is not well to let it get into their heads that you restrain patients, for this will do an immensity of harm and you will find that behind your backs your patients are restrained. If you have your flag of non-restraint out, as a kind of banner of "Excelsior," I believe it will lead to good, but I hope that no one who is narrow-minded enough to say that it

is impossible that restraint should ever be necessary will be listened to.

Dr. ANDREWS. I would like to say one word upon this subject. It seems to me that the bond of union between the English and American alienists has been stated very clearly in the paper of Dr. Tuke and also by Dr. Savage. When our English brethren preached Conollyism, the American alienists could not accept that doctrine. Perhaps we were too literal in our interpretation; as we believed when they said with Conolly, that restraint was never to be used, that they adopted that principle entirely. Since then, by studying the returns of the English Commission, we find that they do not adopt the principle of Conolly, that no restraint is to be used on any occasion, as restraint is reported in all of the blue books of the English Commission and for purposes which meet a hearty response in the minds of every American superintendent, unless perhaps in those of a few who have recently given themselves over to the non-use of restraint and have proclaimed themselves ardent advocates of that system. The union of the two countries in this respect is now, I think, quite complete; and the use of restraint is substantially the same. It is certainly used very little in this country, and only when a medical superintendent believes it an absolute necessity as a mode of treatment, and I think our English brethren accept it and employ it in the same way.

The next paper was read by Dr. HENRY M. HURD, of Pontiac, Mich., on "The Religious Delusions of the Insane,"* after which the Section adjourned until 11 A. M., Tuesday.

The Section met on Tuesday at 11 A. M., pursuant to adjournment.

Dr. SPITZKA contributed the following case of Miliary Aneurism:

Pauline F., aged 24; first consulted Dr. Koehler August 15, 1886. She manifested a peculiar anxious and timid demeanor and complained of a continual feeling of dryness in the mouth. In the course of the further examination she became taciturn, a fact attributed by her aunt to tiring caused by the exertion of speaking. For some weeks there had been insomnia and considerable anorexia. On the two preceding afternoons she had what was described as distinct febrile movements, lasting about seven minutes and followed by sweating. For this Dr. Koehler prescribed anti-periodic remedies, with satisfactory results as regards

* To be published hereafter.

the fever. A more thorough examination on the occasion of his second visit, August 19th, revealed distinct scanning of speech, which the patient made evident attempts to conceal by speaking slowly and avoiding certain words. She complained of great motor weakness and it was very unwillingly that she walked across the room to demonstrate her gait. This was of a partly paretic and partly spastic character. At this time the knee jerks were found exaggerated, the cutaneous reflexes and the movements of the pupil normal. Subsequently it became impossible for the girl to leave her home and report at Dr. Koehler's office.

Inquiry revealed the following regarding the earlier history: Since the summer of 1879, she experienced almost every night a peculiar mental disturbance, beginning about eleven o'clock after she had fallen asleep, and continuing four hours. She would then wake up rambling in her conversation, which chiefly related to dogs, cats and thieves, and at times leave her bed as if in terror of these objects. She entered service in January, 1882, and remained doing light housework till near the time of her first reporting to the physician named. During this time it had been frequently noted that she dropped objects immediately after having seized them. This was particularly liable to happen if she had seized them quickly. On four occasions she was noted after preliminary tottering and swaying to fall down suddenly as if fainting. She recovered and rose of her own accord in a few moments. Her general health remained excellent down to March, 1886, and in her waking moments her mental state was on the whole fair, if any thing, inclined to be sanguine and gay.

From this time on her nutrition imperceptibly deteriorated. Her menses ceased in July and remained absent until her death. During the years 1884 and 1885 the nocturnal mental disturbance had nearly disappeared. In March, 1886, it reappeared and was controlled by bromides. August 24th she was again seen and found mentally clear, but indisposed to speak. Her cardiac action was very feeble, the pulse 64, weak and compressible. She showed a marked intention tremor and there was a decided increase in the paretic-spastic gait already noticed. She could only walk from room to room. Her gait was spastic and paretic, and she caught hold of a chair to prevent herself from falling. A marked intention tremor—almost ataxic in character—was developed on inducing her to attempt approximation of both index fingers.

The patient after repeated temporary improvement in her nervous symptoms, aside from the speech and general nutrition

which both deteriorated progressively, sank into coma and died. The diagnosis of some organic spinal affection related to disseminated sclerosis was made.

Dr. Koehler while treating this patient was reminded of the fact that he had also treated her brother, who had died of nervous symptoms at about the same age as his sister. There were multiple cerebral and spinal symptoms, some of which (mild opisthotonos and facial distortion) pointed to a meningitis. No autopsy was allowed. The father of these two patients had died in his fortieth year of symptoms said to have closely resembled those of his daughter.

The autopsy was made by my assistants, Drs. Brill and Mollenhauer, at Dr. Koehler's invitation. Only the brain and spinal cord were permitted to be removed.

The membranes were found entirely normal, the arachnoid was clear and transparent everywhere. The brain did not fill the skull to quite the normal degree, but there was no evident gaping of the sulci. The ventricular surfaces, fluids and proportionate size of their cavities were entirely normal.

To sum up, there was no anomaly in the color or consistency of the cerebral tissues, nor were there any evidences of vascular disease externally, except in a tortuosity of both classes of vessels on the frontal and mesal faces of the hemispheres. Those of the cord seemed altogether normal, the arteries, if anything, thin walled. On making cross sections of the cord we were surprised by finding a large number of large blood islands, chiefly in the grey, but occasionally, and less marked, in the white substance. Minute examination showed that they were closed sacs, constituting round, oval, but chiefly spindle-shaped ectases of the normal arteries of the parts. In many places the white substance near these bodies had a grayish lustre, and in a few did not sink under the section level as readily as the remainder of the section surface. In the dorsal cord, these ectases were comparatively few, in the lumbar they were numerous.

Everywhere cortex and white substance showed a similar condition of the vascular apparatus. On the whole it might be said that the aneurysmal dilatations were most frequent in the brain, but of largest size in the cord, in one instance occupying the locality usually occupied by a group of ganglion cells, which crowded to one side showed no intrinsic change. In the tegmentum of the pons they were so numerous as to appear to equal the intervascular tissue in square area.

The interest attaching to this case is two-fold. First, it illustrates how a multiple affection not involving coarse tissue change may ape the clinical picture of disseminated sclerosis to a certain extent. Second, it shows how an apparent family type of nervous disease may be in reality but a manifestation of a tendency to degeneration of that system, which is as profoundly under the control of hereditary influences as any other—I mean the vascular.

Dr. SPITZKA next exhibited the cerebellum, pons and oblongata of a child, whose case as a whole had been studied by Dr. Boldt, of New York, and reported in part by Dr. A. Jacobi, of the same city, under the heading “Congenital Lipomatosis.” The special point to which he wished to direct attention was the cerebellar deformity. It conclusively showed that the asymmetry was due to causes inherent to the laws of brain growth, uncomplicated by any pressure on the part of the skull, or premature synostosis. The one hemisphere was greatly atrophic, but its white substance was exposed on the ventrolateral aspect. On the other hand, the left hemisphere was not only overgrown, but the folia of the caudolateral part were ectopic, thus demonstrating an inherent tendency to redundancy. In passing he would mention that the cerebral hemispheres were atypical.

Dr. SAVAGE said: Mr. President and Gentlemen: I have had a somewhat similar case to the one presented by Dr. Spitzka, and with a satisfactory pathological examination. The history was something similar to the case quoted by Dr. Spitzka except that there was not such a direct inheritance. It was the case of a lad who developed all the symptoms of disseminated sclerosis; in fact he was for several years the stock case in London hospitals just as regularly as the lecturing season commenced. He was regarded as a typical case; had the intentional tremor, the astigmatism and everything. This case finally became very excited and maniacal, and had to be sent to an asylum, and after being sent to other hospitals it was thought advisable to send him back to Bethlem, thinking it possible we might trace its pathological nature. After six or eight months he lost control over many of the muscles, was often found wet and dirty. Here his symptoms were also regarded as typical. He was finally sent to a county asylum where he died, and when the tissues or part of the tissues were sent to me for examination I regret to say that no insular sclerosis could be found. There were not even any allied changes—absolutely nothing to be found that would answer to insular sclerosis. The points raised by Dr. Spitzka are, it seems to me, extremely interesting, and I

think we are all now willing to admit that it is rather the order of the disease than the quality of the disease; that a largely and widely spread disease affecting the motor or general tract—especially the motor tract—will give incoördination; will give rise to symptoms that in former years would have been attributed to the cerebellum. I think the Section has reason to be very grateful to Dr. Spitzka for putting this case on record.

The next paper was read by Dr. DANIEL CLARK, of Toronto, Ont.; “Remissions and Intermissions of Insanity.”

Dr. BLANDFORD in discussing Dr. Clark’s paper said: Mr. President and Gentlemen: We are all of us familiar with the periodicity—the periodical phenomena in life and in disease—and there is a great deal in Dr. Clark’s paper with which we must cordially agree, but it seems to me there are certain things in the paper which the Doctor should further explain. We are all of us familiar with remissions and intermissions in insanity, and we have often seen that one man has many remissions of the same kind throughout life perhaps. I knew the case of an old man who became insane first in his seventeenth year, and who had attacks of insanity until he was eighty-five. He was admitted to the same asylum five and thirty times, and had each time precisely the same kind of attack, with the same symptoms, precisely, as I heard. He died at his own house at last at the age of eighty-five. These were attacks of mania, very similar in character during the whole of his life.

We are all familiar with many patients who go round the circular ground from mania to melancholia, from melancholia back to mania, and as I need not tell you these do not follow one upon the other; so that it might be said that the attack of mania, on account of the exhaustion produced by it, culminates in an attack of melancholia; but we often find a considerable period of convalescence between the two. A patient recovers from an attack of mania and remains for a time perfectly well, but the next time he falls ill he falls ill with melancholia; he recovers from that in the same way, and then again there is a period of convalescence; but then there does not come another attack of melancholia, but an attack of mania, and so he goes round in the way so familiar to all of you, and that constitutes the *folie circulaire*. Now it would be very interesting if we could bring Dr. Clark’s theory to bear upon that, and if he will tell us how to account for these different manifestations of mental symptoms.

Dr. CLARK. I may say that my experience in insanity is some-

what different from Dr. Blandford's. I never saw yet an intermission in *folie circulaire* when the patient had normal mental health. There are fluctuations in the man's mental condition, sometimes higher, sometimes lower. In these intermissions of so-called comparative health they seem to have stored up a sufficient supply of psychic energy to appear well, but in my experience they are never the same.

Dr. SAVAGE. I perhaps may not have had sufficient physiological instruction, but when I hear of animal magnetism it means to me that force related to hypnotism, about which we know very little, which is not at present defined. The force referred to here by Dr. Clark is not a satisfactory thing to me. There is another thing to which he has referred. He stated that the brain and cord may be in a creamy condition and yet there may be no serious lesion. All I can say is that my experience, which has been somewhat extended, as far as post mortems are concerned, is that if my post mortem is made sufficiently early or if the patient has been dying very slowly, that if I found a creamy condition of the nervous centres I should be very much in doubt as to whether it was a post mortem result—taking post mortem in the largest acceptation of the term. I do not fully understand what is meant by this animal magnetism. This question of correlation of forces was written upon by our English Justice Grove, and of course it is a very important thing. We are taught nowadays that there is only one force, and therefore if there are manifestations of all kinds there must be correlations of the one force. Of course one believes that there are interchanges, that chemistry and electricity are modifications of some kind of force, and we are all prepared to accept that what we call vitality is a combination of all these forces. I can not accept as a statement of fact that the insanity I see answers in any way to the alternations that have been described by Dr. Clark. First of all we have the alternations Dr. Blandford has described. I see men who once in five or six years from similar causes go through the same set of performances. One man I know of will be ready at the end of a fortnight now to tell me a very interesting history. I have three of them—almost word for word the same histories. I can prophesy now that in another week he will smoke leaves and tell me they are better than tobacco, and so the whole thing moves on. It does not go up and down; it moves on in anything but a vibratory way, and I can not at present understand any relationship between that process, which is to my mind rather an automatic action that

has been established during some period of his past life rather than the result of any force he has stored up. I say first of all that I do not recognize animal magnetism; second, I do not recognize the class of cases as described; and third, there are certain cases in which complete remissions take place as Dr. Blandford has said; I emphatically say complete; that there are cases in which the manifestations are circular, if you will, in which there are as complete remissions as it is possible to have. Then again there are remissions of most complete description in cases where there is organic disease which is progressing to a fatal end; cases of general paralysis of the insane that are going down hill as steadily as they can. One such case I remember very well and I shall be very glad to contribute the material to Dr. Clark if he so desires. This was the case of a man who ten years ago had all the marked symptoms of general paralysis of the insane. He was looked upon as dying and his wife was with him. He had developed an enormous carbuncle between his shoulders. Now instead of dying he had such a complete remission that he was granted leave of absence and afterwards demanded a restitution of his civil and other rights and appealed to the Lord Chancellor in the matter. For seven or eight years he lived in good health and only died two years ago of some nervous complaint while under the care of Dr. Ferrier. That there should be such complete remissions in not only acute cases, but in those with progressive degeneration I can not see is explained by this force spoken of by Dr. Clark. If this force is the result of a battery, and if this battery itself is wearing out, I do not see how it is possible that the battery having more than half worn out the force of animal magnetism is still acting as well as it did before. But there is an old saying that a fool may often ask a question and a wise man find it difficult to answer.

Dr. FERGUSON. Dr. Clark has in connection with the remissions and intermissions of insanity brought forward the idea of cyclical or recurrent movements as a means, as it were, of explaining these intermissions or remissions and then in connection with that has advanced some thoughts as to the cause of cyclical or rhythmical movements. There are certain things in the physical world as well as in the mental world in which a wall is raised and it may be said thus far and no farther. Occasionally if we break over this it is only to find another wall. We may speak of a certain irritation as causing a muscular movement or movements, but I believe in its essential nature the movement itself is one of

the unexplained phenomena. The Doctor comes forward with the idea of electricity somewhat in the form of a trinity, and although some portions of his notions of it may be tangible to us, other portions are more or less metaphysical. Dr. Clark however forms an unity, from his trinity of force, comparable to some notions of an unity of matter. I believe the natural result of such a conception of unity is the idea of absolute rest.

Dr. HUGHES. Mr. Chairman and Gentlemen: We have to bear in mind in considering the organisms in our mind the fact that there is a basal motor organism whose physiology although now dimly seen is yet probably destined to furnish explanations far beyond our ken in neuro-pathology, and neuro-psycho-pathology. In nature there is no basal motor organism. Here it seems to me is a stumbling-block in the way of accepting the conclusion of this paper. I shall speak to the question of the recurrence of mental aberration and to add my humble testimony to the undoubted fact—so far as the best of my judgment has been able to determine—of the undoubted restoration from insanity in cases of *folie circulaire*. I have been accustomed in my own mind to invoke in explanation the existence of a basal motor mechanism and to assume that the explanation existed in the fact that the insanity in cases of *folie circulaire* was mainly one of a basal motor mechanism, and that the control of the basal motor mechanism over the arterioles touched different psychical centres in the recurrent forms of *folie circulaire*. This, in the present state of our neuro-pathology and neuro-physiology, is but a conjecture but still how much more of our knowledge is conjecture.

In regard to general paresis within the past year one of my patients, a case of general paresis resulting from syphilitic destruction, made a valid will, it possessed all the attributes of validity according to legal tests, and made a distribution of his property as he had intended to distribute it before he suffered from mental disease.

The great obstacle in the way of discussing Dr. Clark's paper is the barrier which physiology has placed in the way of allying physical organism with chemical organism and which consists in the basal motor mechanism and the part which it plays in neuro-pathology and neuro-physiology.

Dr. CLARK. I am glad that my paper has elicited so much discussion. The gentlemen who have discussed the paper will notice that while I have made a key to try to open the lock they have applied no key at all. The question is what is the explanation

of this subject. I have tried to say what it is. I may say that I do not hinge upon galvanism in my arguments. I only take that as the last of a descending series, chemical force, vital force and animal magnetism. Simply to nail these arguments against the last of these is not exactly fair. I can only say if you can present anything to account for this peculiar form of insanity let us have it.

I may say here that I do not believe that any man ever recovers exactly from insanity. I do not believe that any man who has had physical disease in his brain, whose footprints are found there after death as they are in any part of his body, I do not believe that that man has ever the same functional activity as before the onset of this disease. He may do his business well, he may seem well to his friends and to keenest observers the same, but I have inquired of dozens upon dozens of these men who have apparently recovered and have heard something like this: I am not the same man that I was before I was insane. Recovery is only a relative term which means that he has come back to continuity of thought, ability to hold on to a mental group as he did before. But patients tell me that they never come back to the same mental power they had before the insanity came on. That is the experience of many alienists with whom I am acquainted, as well as my own.

Dr. H. WARDNER of Anna, Ill., read the next paper, "Occupation in the Treatment of Insanity" and was followed by Dr. DAVID BOWER with a paper on "Occupation for Patients in Private Asylums."

At the close of Dr. Bower's paper Dr. ANDREWS said: I would like to say one word upon this subject. It is now some ten years, I should say, since a great deal was said about the great amount of occupation that was made use of in English asylums and we in America were read very strong lectures about our remissness in not making use of occupation to a greater degree. I think that at that time there was some justice in the comments that were made. Occupation did not then hold the place it does now nor that it did in English institutions. My own judgment is that in neglecting it we deprived ourselves of a great means of treatment and certainly of enjoyment to our patients. At the present time I think this is entirely changed. I think that the importance of occupation is now as fully recognized with us as it ever was abroad. Years ago when I used to note the large percentage of patients employed in some of the English asylums I questioned in my own mind whether those statistics were really honest and correct. But

after years in making use of occupation and in having opportunity to control the matter, I fully believe that those statistics were correct. At present we are able to employ from 75 to 77 and 78 per cent of all patients in the Buffalo asylum and I do not know that it is anything specially different from other institutions. I do not think we can overestimate the importance of occupation. The directions in which it benefits the patients are, of course, obvious to every one. I believe that every one is happier for work, whether he be a rich man and able to pay large sums for his care or whether he be a pauper, and I believe that the more fully occupation can be given him, within moderate and proper limits of physical and mental condition, the better and happier the patient will be.

Dr. ELLIS. Doctor, can you tell us how you encourage your patients to work?

Dr. ANDREWS. It is done entirely by moral measures. I endeavor to make every one understand that he is expected to work, and that it is the proper thing to do. We have never yet given any payment for services performed, and when that has been broached I have always said to the patient: You get the best end of the bargain altogether; you are improved by the occupation and you ought to be thankful for the opportunity, that we are able to provide something in which you are enabled to expend your energies; your health and your happiness are promoted in every way, and it is you who receives the benefit. Throughout the asylum there is an influence, a spirit of that kind which simply by its own weight brings about the result.

The Section then adjourned until three P. M.

The Section was called to order at three P. M., Tuesday, September 6th, by the President, Dr. Andrews.

The first paper was read by Dr. THEO. W. FISHER, of Boston, Mass., on "Monomania and some of its Modern Equivalents," and was not discussed.

The next paper was presented by Dr. H. M. BANNISTER, of Kankakee, Ill., on "The Classification of Insanity." Dr. Bannister being absent, the paper was read by Dr. Walter Channing.

Dr. CHANNING read a paper "The International Classification of Mental Diseases." Discussion was postponed until other papers had been read.

Dr. C. H. HUGHES read a paper on "The True Nature and Classification of Insanity."

Dr. YELLOWLEES, in discussing Dr. Channing's paper said: I have always felt, Mr. President, that the classifications of insanity we have been using are a standing reproach to us. It is a great step towards our further progress that we should acknowledge this to ourselves. We all of us know quite well in our inner consciousness that such words as mania, melancholia and dementia are simply labels for symptoms; that we know very little about the pathological condition which underlies them, and that we are driven to adopt these labels simply because we do not know better, and as I say, this frank confession is a great step towards progress. As to this classification, (Dr. Channing's), I do not believe we shall ever universally adopt it until we get a far more secure basis for classification than we now have. If you look at this classification you find under different names quite similar conditions, and I think if a patient were brought into this room, gentlemen here present would be liable to attach different heads in this classification, to describe his condition. Circular mania is not found in his table. Chronic mania continually mixes itself up with dementia. The classification which we generally adopt is valueless except for the fact that we generally and roughly know what we mean by it. I know that it is a strong speech, but we each of us know how liable we are to great fallacies just because of the indefiniteness of nomenclature. Take primary delusional insanity; many people will say that it is not primary; it develops from melancholia or some incidental condition as we have all seen it do. Another says I can't tell between primary dementia and the acute stupor of melancholia. And so this classification, founded upon simply labeling symptoms, is a very unscientific one and we are driven to it because we can not help it. Speaking again of Dr. Channing's classification the thing which seems most definite about it is general paralysis. Yet even general paralysis in its early stage is oftentimes quite undistinguishable from acute mania; you can't tell in its early stage whether it is acute mania or whether it will eventuate in general paralysis. That is our universal experience.

As to Dr. Hughes' paper all I have to say is that if all morbid psychical conditions are to be included under the term insanity we must alter very strongly its ordinary acceptance, because there are very many morbid psychical conditions which are not so regarded now. Although the term may be philosophically right if we tell the public that every queer manifestation amounted to insanity I am afraid they would rebel very much.

Dr. CHANNING. In regard to Dr. Yellowlees' criticisms I would

say that this matter is nothing personal to me but is something that was adopted last summer at Saratoga. My paper was simply the entering wedge, offered to see if it was possible to get anything that would be universally practicable. That was the point and this seemed to me the best we could do. Circular mania would not find a pigeon hole in this classification, but when that point came up in the discussion at Saratoga the gentlemen present thought that these cases of insanity could be brought in in the classification under one of these forms of recurrent mania or melancholia. Of course pathologically or clinically the classification is not correct. But we have to do something with this class of cases. Every asylum superintendent has them and must make statistics. Can we get up a table that will be useful for our purposes and have it used as an international classification?

Dr. DUQUET. I have but a very few words to say. I do not see why we should put puerperal mania in this classification. If we do, why should we not have a gouty insanity, a gouty mania. It would be better, I think, if we defined acute, sub-acute and chronic mania, and leave the puerperal which might be put in as a subdivision. I would do the same thing with melancholia. If a patient comes to an asylum in an acute stage of the disease, either mania or melancholia, and if the physician knows nothing about the former attacks, how is he to distinguish if it is a recurrent acute mania or the first time that the patient is attacked? As far as primary delusional insanity is concerned I find it pretty hard to translate, even in French, and to give it a clear definition. I think the term *paranoia* given by Krafft-Ebing would be better than this, because it gives a certain class that every one knows. I think this division of dementia is too large; I should include in it, however, general paralysis which is nothing but dementia. It is true that in the beginning it may resemble mania or melancholia, but I should consider it the same as the other dementia.

Dr. HUGHES. Mr. Chairman: I think the more we attempt to divide the more we confound confusion. Everybody who has studied insanity for any length of time has sought to make a classification. Some have made a classification on the pathological condition, others from the causes represented and others on the symptomatic expression. It occurs to me that any classification which embraces all these is a hybrid one. Now when you enter into puerperal insanity as a positive form of insanity, why not go through the whole range, as has just been stated; then you get a classification that is absolutely endless; a classification which

would be longer than the moral law and would extend to the full extent of each individual perception of the real or probable causes of insanity. Now what more potent cause of insanity is there than gout and rheumatism and venereal poisoning—and you can't stop; the classification must be defective if it draws a line on puerperal and epileptic insanity and alcoholic insanity. You can't possibly make a classification of that kind. Then in the present state of our knowledge of diseases of the brain we can not form a classification based at all upon pathology; we must give that up.

Now I always feel a kind of sympathy for any man who attempts to formulate a classification of insanity. I have tried that myself, and I have got disgusted with myself. It may help the man who gets it up but it helps no one else. Almost every man has different ideas in regard to different forms of mental disease, and he will classify and define insanity according to his deductions. But in a court the simpler the classification the better. I generally satisfy myself with mania, melancholia and a few other forms that jurymen can comprehend. If a man uses the term moral insanity in a court room he is sure to get into trouble.

In the paper I have read I do not mean to exclude idiocy, imbecility and cretinism, but to include them in our definitions of insanity, and it occurs to me that the real barrier in the way of all people who object to a comprehensive definition of insanity is the question of responsibility. I think we will have to confess the question. Now we have permitted the courts to step in and say to science: you must give us such a definition as will suit the law; which will suit us as a test of responsibility. Even as eminent a gentleman as Dr. Bucknill has fallen into that error. He has stepped beyond the confines of science to obey the dictum of law. We have nothing to do with the question of responsibility as persons engaged in the pursuit of a scientific study of the mind in its morbid manifestations: we have simply to reach such a conclusion as seems to harmonize with nature, that seems to be expressive of the facts of nature as we discern them, and to express that conclusion, and let the results be what they may. We can tell of course, although they interdict us from doing so. We may say that any state of disease affecting the brain so as to disorder the mind in its normal manifestations is insanity and we know it to be so. Any state of the brain, any disease which causes the mind to manifest itself in an abnormal and unnatural manner is insanity,

whether the individual be responsible or not, and we must take that as our definition.

As to congenital defects, they are called teratological and they do not come under the definition given by one of the most distinguished alienists, a man who has contributed more to this subject than any one else, Combe. Insanity according to him is a prolonged departure from the natural habits of thought, and feeling of the individual without adequate external cause. This may be and is usually useful before the courts. But it does not include anything beyond the ordinary forms of mental aberration. Has any one here seen the few recent cases of what we call paranoia or what is called primary delusional insanity in that classification? Combe gave a definition that has done more to enlighten alienism than any other man that ever wrote upon that subject. I believe that that is without question. I think I have heard the most eminent men in alienism make use of that classification over and over again. Our own Ray used it in his fine work upon insanity and adopted that as the basis of his knowledge. It has been of more service in the explanation of morbid manifestations to the average man than any other definition that was ever given and yet that definition excludes idiocy, imbecility and cretinism and we have to make that explanation always when we use it. I often use it in court. Now we should adopt a classification so comprehensive as to include these; they are as true forms of mental disease as any other. Let us adopt such a classification be the consequences what they will.

At the conclusion of Dr. Hughes' remarks the Section adjourned until 11 A. M. Wednesday, September 7th.

The Section was called to order Wednesday, September 7th, at 11 o'clock A. M., by the President, Dr. Andrews.

Prof. E. MENDEL, of Berlin, read in German a paper on the "Origin of the Upper Facial Nerve."

Dr. SPITZKA. The discovery of Prof. Mendel clears up some of my own doubts. I have never been able to satisfy myself that the entire facial nerve arose from the ventral facial nucleus, and finding that an accession of fibres occurred in the region of the Genu thought that these comprised the palpebral fibres and came from the abducens nucleus in opposition to the statements of Von Gudden and the well known observations of Gowers. But this discovery of Professor Mendel explains the whole thing. It is in complete harmony with the view which anatomists were

gradually approaching that nerve nuclei are arranged rather with reference to physiological harmony than peripheral distribution or segmental symmetry.

Dr. E. A. HOMEN, of Finland, next read a paper with photographic illustrations on "Histological Alterations following Amputations in the Peripheral Nerves, the Spinal Ganglia, and the Marrow."

Dr. Homen has made some interesting experiments with dogs. In some of the animals he had amputated the hind leg below the knee, in others the hind leg at the thigh, in others the fore leg at the shoulders. He kept some alive three weeks, some for months and some for years. He found that the atrophy, besides involving those limbs whose atrophy has been stated by previous observers, chiefly the posterior column, also involved a special cell-group of moderate or small-sized cells. This cell-group was atrophied when only the posterior roots were eliminated. He concluded that they had a sensory function. In most of his cases the ascending degeneration was very slight and difficult to identify. He spoke of the changes in the nerve stumps as confirmatory of previous observations by others.

Dr. Spitzka asked Dr. Homen to state more definitely the location of the degenerated area. He referred to the fact that in some cases a part, in others the whole of the hind leg, in still others the whole of the fore leg, had been amputated; the area of secondary ascending degeneration must have been different in each case. It seemed to him that in the last mentioned case the degeneration should be in the comma-shaped field, in the former two in special parts of the column of Goll.

Dr. Homen replied that on the whole he supposed that expectation would be realized, but where he had succeeded in tearing out special posterior roots their number had been too few, and the consequent degeneration too slight, to permit of very accurate and positive location.

Dr. Savage said the demonstrations of Dr. Homen were most interesting from a physiological as well as from the pathological side; they were valuable because they had been most carefully conducted, the experiments having extended over some years. It was a fruitful field, not only associated with general paralysis of the insane, but also with cases of locomotor ataxy. He was heterodox enough to believe that there may be ataxic symptoms due to progressive degeneration from the periphery and that they were common with degeneration with some as yet undescribed

cortical area. He regretted that he had not the opportunities for pursuing these investigations and experiments possessed by the French.

After listening to a paper "Cases Illustrating the Association of the Prow-shaped Cranium with Neurotic Disease," by Dr. J. LANGDON DOWN, and Dr. OTTO's paper on "Nucleus Staining with Aniline Dyes," the Section adjourned to 3 P. M.

The Section was called to order at 3 P. M., by the President, Dr. Andrews, who announced as the order of the afternoon the discussion of Syphilis and its Relation to Insanity, under the following heads:

1. Idiocy, Imbecility, Moral Perversions due to Inherited Syphilis.
2. Insanity Associated with Acute Syphilis. (a) Physical. (b) Moral.
3. Syphilis Producing Epilepsy with or without Insanity.
4. Syphilis Producing Mental Weakness, (a) with, (b) without Paralysis.
5. Syphilis as Associated with General Paralysis.
6. Pathology as represented by coarse changes like gummata or slighter ones as seen in arterial disease.

Discussing the first group, Dr. SAVAGE said: I have spoken of occasional idiocy depending upon general specific changes and general interference of the growth and nutrition of the body and brain together. I have had experience with other cases in which weak-mindedness has depended rather upon the loss of sight, loss of hearing, or these combined, occurring with young children and producing the form of idiocy that has been called the idiocy of deprivation. But one has a third class to point to, though before I came to America I had no absolute facts to point to. Now before I left London there were two boys fifteen and sixteen years of age respectively whose fathers had died of general paralysis. These two patients were suffering from typical weak-mindedness. In one of these cases there was very little doubt that he died of general paralysis associated if not caused by syphilis. Since I came to America I have met with one case in which Dr. Folsom was able to say definitely to me: "A case of mine died of general paralysis of the insane depending upon syphilis as clearly as a disease could be said to depend upon any other condition and his child was idiotic, begotten when the father was suffering from constitutional syphilis, though he had not at that time shown the objective signs of general paralysis. My

experience in that line, therefore may be summarized in this way: We get but few idiots among the children of syphilitic parents; that we are to qualify that statement by remembering so many die in utero and in earlier life.

After presenting the views of Drs. Shuttleworth and Fletcher Beach, Dr. Savage continued: Although these gentlemen speaking from the side of the asylum say we do not recognize syphilis as a common cause of idiocy or imbecility, on the other hand physicians who are largely connected with the treatment of diseases of children write differently. I hold in my hand a paper written by Dr. Judson Berry, of Manchester, who was connected with the hospital for children, and he says it is not an uncommon experience for him to have weak-minded children with a history of congenital syphilis. So we have alienists and those connected with asylums on the one hand who say these cases are very exceptional, some saying they have seen but one per cent of idiots, some two per cent with signs of syphilis, and on the other hand we have the general practitioner who says he believes it is more common than we think.

Dr. Down. Mr. Chairman and Gentlemen: I wish to add my authority to the views here expressed. Not only do I believe in that small percentage of syphilis in idiots and imbeciles as derived from my clinical experience, but also from pathological investigation. In three hundred cases there were not more than two per cent which gave any evidence of hereditary syphilitic disease, and in those cases the evidence was seen in thickening of certain bones. I commenced the investigation in the strong belief that I should find syphilis a very important factor, and it was only by thoroughly investigating the cases and by clinical methods that I arrived at the conclusion that not more than two per cent of idiots are the subject of congenital syphilis. Dr. Savage referred to a case where he suggested the idiocy was owing to deprivation. I do not think that was entirely the case. I think the deprivation was a small factor, and that it was a case where syphilis was the important factor. It was the case of a young lady who had mental and moral perversion, due unquestionably, in my opinion, to syphilitic disease. Then the question in some cases where the children have been born in the presence of syphilitic disease—that is a point which makes it difficult in arriving at definite conclusions.

As to the last remark by Dr. Savage in regard to the divergence of opinion between alienists and general practitioners on this sub-

ject I may say that I am an alienist in this department, but I am also a general practitioner and a physician to one of the largest hospitals in London, and my private work is very much with the class of children which would come under the hospital care, and by my experience, both in the London hospital and my experience also with private clinical work, my opinion is confirmatory entirely of the view which I have heard advanced; that syphilis is not an important factor in the production of idiocy. So that while I am averse to the gentleman last quoted I am glad that I am in harmony with the large number of my colleagues who have here confirmed an observation which I made many years ago.

Dr. HURD. Rather with the idea of adding to Dr. Savage's collection of cases than telling anything new I would mention that on one occasion two imbecile boys were brought to the institution with which I am connected. One was twelve years old, the other ten. The older had no notched teeth and he was simply an imbecile. The younger had the characteristic notched teeth and had I received him alone I should have had no hesitation in saying that the father or the mother was tainted with syphilis. I confess I was puzzled to explain the fact that one of these children presented evidences of congenital syphilis while the other did not. My explanation of the case was that in many instances the notched teeth were simply indicative of a defective physical organization. The older of the boys was the better developed, both physically and mentally. The deterioration of the stock seemed to have advanced another step in the other boy. The younger boy was more feeble-minded, and defective physically; and I regarded his notched teeth as the evidences of increasing physical degeneration.

Dr. GUNDRY. I have nothing very new to add to the discussion, but one or two facts and one or two doubts. First, the doubts. It is so difficult to isolate any factor in the production of disease and especially such a factor as syphilis. Syphilis as a cause of disease, we have oftentimes among other causes which are more striking and which give the color, so to speak, to the causes assigned by the physician. In that way, oftentimes, syphilis which may have contributed to it, has not even been suspected. Therefore in many cases which were probably due to syphilis, some at least due to the syphilitic taint, it has not been recorded or suspected. There are a few cases in which syphilis stands out so prominent as to make it impossible not to discern it, and it has obscured the other factors. Occasionally we have syphilis so isolated that it can not be confounded with other causes. One such

case my memory recalls in this discussion. Many years ago I had a friend, a physician, as pure a man as ever lived, who contracted syphilis in his practice. The disease was not diagnosed, it was neglected. The moral aspect of the case negatived the presumption of syphilis in the minds of many whom he consulted, and it was a long time before he came under proper treatment. The disease went on and gradually mental symptoms arose, during which time I saw him. These symptoms gave rise to a fear of general paresis. There was a great deal that tended that way. About that time I left the State. I afterwards learned that in two or three years he died of what was supposed to be general paresis, or analagous thereto, resulting from syphilis. Two or three years ago in revisiting my old home I went to the Idiot asylum, and I was very much shocked when the superintendent pointed an idiotic child out to me as my friend's child. Calculating the time I found it was born when he was suffering from these anomalous symptoms, which his friends had not recognized as syphilis, but were so treated afterwards with apparent benefit. This man died from general paresis; I have no doubt of it. Now one fact like this, from which everything else has been excluded—there was no drunkenness, no dissolute habits, nothing at all but the syphilis in the case and the worry incident to the trouble he had been brought into—I think speaks more eloquently than a great number of cases in which there are many other factors involved. I have seen, too, not always so clearly shown as this, quite a number of cases—I won't say a great many—in which I thought I had traced the mental weakness and especially the moral perversion of children, the feeble moral tone, at any rate, and something of the feeble intellectual tone of children to syphilis of the parents. Then again, if you go into the larger cities, where children are brought under treatment, you will find a general feeling prevalent among those physicians who care for them, that a great number of anomalous mental symptoms, feeble-mindedness, especially weakness on the moral side, are to be attributed to syphilis. Probably they do not exclude other things, but on the other hand many other factors are credited with that which is due solely to syphilis; so that I should be rather slow in coming to the same conclusion that our friends on the other side of the water have, that syphilis is so slight a factor in producing moral weakness or imbecility in the next generation.

Dr. SAVAGE. First of all I look upon Dr. Hurd as heterodox. I can have no communion with him when he talks about Hutchin-

sonian teeth as if they can be the outcome of anything but syphillis. This fact has been impressed upon me by Mr. Jonathan Hutchinson, that syphilitic teeth are syphilitic teeth and that they are nothing else, and that no interference with second dentition, no struma, no scrofula, nothing can produce these teeth but congenital syphilis. This merely in passing. Hutchinson goes so far as to say that there are many other teeth that have been classed as his which are not his.

In regard to what Dr. Gundry says, I have to agree with him very strongly in what he says of the moral perversion found in children of syphilitic ancestors. Dr. Maudsley has written largely upon the tyranny of our organization, and the tyranny of our organization is nowhere more marked than in our moral goodness or badness. One has seen syphilitic children who have shown moral perversion, and how could it be otherwise? The fathers and mothers are dissolute and it is from this cause that we have the moral perversion. I can not accept the view that it comes from the syphilis.

Dr. Down's case was that of a person whose father was an abandoned man and the mother nearly as bad. The patient was the only child and he had the syphilitic disease of both parents. Syphilitic corneitis was present and with it the most unbridled lust that it was possible to have.

Passing to the second branch of the discussion, Insanity associated with Acute Syphilis—

Dr. SAVAGE continued: I have had many cases in which with the ptosis, with the external strabismus and with the other oculomotor or ocular trouble, insanity has developed. One of the best cases that ever came before me in that relationship was that of a jockey who trained for the Duke of Westminster, and who when he recovered said that he had never gone to bed with less than twenty pounds of horseflesh under his pillow, and was therefore an extremely anxious man. He contracted syphilis and five or six months after the development of it got double optic neuritis with impairment of vision, and from that at once the character of the insanity was developed. He saw vaguely and with uncertainty, and owing to his education his suspicions made him believe that every one who came near him was coming with the idea of injuring or tampering with him in some way. He became pugilistic, knocked people about and had to be sent to the asylum where specific treatment cured him rapidly. That man is now training race-horses for another nobleman. I have seen other cases in

which, associated with optic disc trouble or with the onset of ptosis and strabismus and double vision with temporary hemiplegia there was a development of either weak-mindedness or of some insanity which has been recovered from with the anti-syphilitic treatment; and this is, as it were, an introduction to a case to which I shall refer later, in which these local troubles instead of being recovered from, seemed the foci from which general degenerations occurred, as general paralysis and dementia. Besides that I have had one or two cases in which the pressure of syphilis, the constitutional syphilis in its most advanced type, has had something to do with the development of insanity. One case is described by Wigglesworth in which acute syphilis is associated with acute insanity, and one has had acute syphilis with oculomotor troubles with insanity. One has had great disfigurement of the face, a great amount of ulceration—I have at present a patient who lost almost the whole of his nose, with immense ulceration about the nose, and with it a steady and progressive weak-mindedness. I shall point out that these cases are not at all unique and that I have recorded at least a dozen of them.

Dr. FERGUSON. A portion of Dr. Savage's paper has called to my mind an instance under my personal observation of insanity resulting from syphilis.

The subject was a man whom I saw several times in consultation with his physician, and whose personal history was intimately known to that physician. He was a man of the utmost rectitude of habits, a man who was believed to be perfectly virtuous during his entire life. Three or four days after his marriage and during the festivities connected with that event, an improper sexual intercourse occurred and syphilitic infection resulted. The moral effect upon the patient was very severe indeed. He could not forget what he considered the moral taint, and during the first portion of the secondary symptoms he became a victim to a form of insanity which might fairly be attributed to moral causes. He recovered from that after a comparatively brief time, but the syphilitic infection was a striking instance of those virulent forms which we occasionally see, and which show that however specific and active our medication may be it is decidedly impotent as far as they are concerned. This man was put upon most thorough anti-syphilitic treatment and the most approved methods brought into play, but each and every one of the manifestations of the syphilitic poison seemed to march onward in its course uninfluenced by treatment. Somewhere between two and three years

after the first appearance of the disease there began to develop evidence of cerebral disease and he again became insane. This was preceded—I will not go into the special symptoms—by a period of severe pain in the head. The diagnosis was made perfectly satisfactory to the attending and consulting physician of syphilitic disease of the brain, and was confirmed by the autopsy, made in an institution near by, but at which I was not present; there being found gross lesions of the membranes of the brain and bones of the skull. The case was to me a very striking illustration of the dependence of insanity upon syphilitic lesion as well as of the powerlessness, in some cases, of anti-syphilitic treatment.

Dr. HURD. Mr. President: I have no doubt in my mind but that a true syphilis will produce the simpler psychosis, like mania and melancholia. I have in mind a patient who came to the asylum with which I am connected suffering apparently from acute mania. Shortly after admission it was discovered that she had syphilis. She had a syphilitic rash, an elevation of temperature and a regular course of symptoms which lasted several weeks. She was promptly put upon treatment with the effect of subduing the syphilitic disease, and there was a corresponding improvement in her mental condition. In her case, however a constant tendency to relapse was present, which was associated invariably with an accession of the syphilitic trouble. The disease finally became constitutional. After two or three years' treatment the syphilitic trouble was in such a state of abeyance that the girl was sent home on trial and has now been at home nearly a year. I have no doubt that sooner or later I shall receive her back, in consequence of the fresh lighting up of the syphilitic disease.

Dr. HUGHES. Mr. Chairman: The most numerous cases of syphilis that have come under my observation have been associated with a latency in the most prominent early manifestations, and I think the point which Dowse makes on that subject will probably be borne out by further clinical observation. In the institution at Fulton, the recorded history of most of these cases gave a history of a previous long-continued duration of syphilitic poison and an apparent cure of the gross lesions so far as perceptible, disappearance of the chancre, disappearance of the syphilitic indurations and all of the gross symptoms perceptible to the eye, and at a later period in the case was the setting in of symptoms of mental aberration which were probably due to that peculiarity which syphilis manifests in the neural tissue to produce abneural changes rather than changes within the structure of the nervous

texture itself, and I think this definition which Dowse has made between these two complications of syphilis is one which is very valuable for us to consider with reference to our prognosis, and which explains to us the facility with which syphilitic mental aberration is removable under adequate and vigorous specific treatment—probably to reappear as we sometimes see it in the life history of the individual again and again before its close, sometimes reappearing in another portion of the cerebro-spinal axis, attacking the spinal cord as you know, and giving us the symptomatic expression of locomotor ataxy as I have seen in some of my patients.

For a long time in my clinical experience at Fulton I concluded that it was only the insidious and chronic forms of insanity that were the most likely to be engendered by the syphilitic poisoning; those cases which come on slowly and insidiously, beginning with syphilitic melancholia and passing into mania, etc., in those forms of general paresis with which we are so familiar. But one case as far back as 1867 made a profound impression upon my mind as to the power of the venereal virus to engender acute mania in its most virulent forms. That was the case of a lawyer who about six or twelve months previously had had an attack of syphilis which had apparently disappeared under treatment. The patient came to the institution suffering from an attack of acute mania excited by a slight debauch; I believed this to be the exciting cause. A similar case of general paresis occurred in the chief clerk of the House of Representatives about that time in which syphilis was the predisposing and the pathologically determining cause in all probability so far as the history was concerned, and a debauch, which was not common to the individual, I regarded as the probable exciting cause. I suppose the vaso-motor disturbance caused by that one spree had brought about the localization of the subsequent pathological changes. Now we know that there is such a thing as syphilophobia; that it may exist without the pre-existence of any syphilitic poison, and we know that it may exist concomitantly with that and yet not be a syphilitic affection, and this syphilophobia may pass into melancholia which has no connection at all with syphilis, and it may or may not be associated incidentally with the syphilitic virus, with the person's venereal virus in the system. We have to make these distinctions and we all of us do in determining the existence of syphilitic insanity. Syphilitic general paresis, I have no doubt, is exceedingly common as the result of this poison.

Dr. GODDING. Mr. President and Gentlemen: If this is the proper point in the debate I would like to emphasize a point that has already been made, and that is that while we have insanity undoubtedly resulting from the specific poison of syphilis it has not been my good fortune to be able to identify any mental symptoms whereby I could diagnose it as syphilitic insanity.

I shall give briefly the case of a girl who came under my observation about nine months since in apparently the most advanced dementia, drooling—almost aphasic dementia. But for something in the history of the case that pointed in the direction of syphilitic poison I should undoubtedly have passed it by for a case of hopeless dementia. After a short time she was placed upon syphilitic treatment and almost simultaneously there came out the most extensive rupial sores with loathsome abscesses. The effect on her general health was such as to render it doubtful at one time if she survived. How far that low condition of general health may have affected the brain I am unable to state, but she was put upon the usual remedies and to-day there is almost a complete restoration of her physical health. She is rosy, plump, and although she has some evidences of rupia left she is apparently as intelligent as any other girl in her station. She is happy and pleasant, and I shall take great pleasure in showing her to the gentlemen who may visit me. If she had suffered with this apparently hopeless dementia and it had come from any other cause I should have abandoned all hope at once. The case, however, presented at first no lines which would enable us to identify it as syphilitic insanity.

Dr. SPITZKA referred to a condition in the secondary stage of syphilis in which a febrile state was complicated by an acute mental disturbance. This is exceedingly rare. The only case he had seen reported was one seven years ago. He did not know of any such case having since been reported where exact methods had been produced. The discovery had been made by Finger that during the roseola eruption there is abolition of the knee jerk. The knee jerk finally reappears with the repression of the fever; then again it disappears. This shows how profound an effect upon the nervous structure this virus must have. The question seems to be an open one, whether this form of delirious mania is a febrile insanity or a specific syphilitic one. Of course the treatment in all cases has been anti-syphilitic because in treating the case we strike at the root of that fever. The symptoms resemble those of scarlet fever and measles.

Dr. BRUSH. Some years ago before I was engaged in the treatment of insanity I was so situated that I saw a great deal of syphilis. Unfortunately then I knew very little of neurological science or I should have been more careful to observe one or two cases of delirium, in the second stage, that I saw, in reference to the point Dr. Spitzka has made as to the abolition of the knee jerk. We have now in the hospital at Philadelphia two cases, recently admitted, in both of which the knee jerk is entirely absent, and as confirmatory of Finger's observations one of these cases had a short time ago a remission of symptoms of acutely maniacal excitement. He had been quiet and coherent, had had parole of the grounds and did nicely for five days. About the middle of that period there was a very slight return of the knee reflex. Previously it had been entirely absent. He tore his clothing and had hallucinatory disturbance of sight and hearing.

In reference to this question of syphilitic insanity, or rather insanity produced by syphilis, I do not like the term syphilitic insanity—I do not think we can call it a special form. There was last winter at the female department of our hospital a patient in very much the same condition as this man. She suffered from acute maniacal excitement, with a very high grade of mania, and being a married woman there was no suspicion of syphilis. After she had been in the institution a few weeks the attendants on bathing her noticed a peculiar and suspicious eruption on one of her legs. The physician's attention was called to it immediately. She was put upon specific treatment and in a week her symptoms had grown less marked, and in a month she went home and has remained, according to her friends, perfectly well ever since.

Dr. FISHER. I will quote a single case in my experience. Twelve or fifteen years ago a young officer in one of the hospitals in Boston contracted syphilis. He had of course the best medical treatment. He was very much mortified at the occurrence and after a time went into a state of great apprehension, was sleepless and developed some delusions of suspicion. It is necessary to state that his father was insane; he had melancholia and committed suicide. This young man was sent to the Concord Asylum where he remained two weeks. The syphilitic symptoms disappeared, and under treatment in the asylum he recovered his mind and was discharged. I have no further knowledge of the case.

Dr. BROWN, of Barre. I want to add a word in confirmation of the position taken by Dr. Savage and Dr. Down in reference

to the effect of syphilis upon imbecility and idiocy, not that I have anything at all to add except to say that in an experience of thirty-five years in connection with the care and training of idiotic people I have not had in the whole number of people I have seen more than five where I had good evidence that there was a syphilitic inheritance; about one and one-half per cent.

Dr. SAVAGE. With Dr. Godding I feel there is no such thing as syphilitic insanity. I forget which of the London teachers it is who is always asserting that each organ has its ways of expressing its illness. You have no more right to talk of specific insanity than to speak of a specific cause of asthma. I think the less we talk about specific insanity the better.

Dr. Spitzka's observation interested me extremely. First of all that the delirium which occurs with syphilis—that may occur with it—a mere extension of it may become acute delirious mania; then the next thing that with that there may be a loss of the reflexes which we know is not an uncommon result of the disease, syphilis in its last end, locomotor ataxy; the whole thing seems to be a consistent whole and we have thereby a consistent physiological process that is of extreme value and interest. The cases that have been brought forward also seem to me to show that many others have been observing in the same way and that if these cases are recorded, as they will be in the transactions, I have no doubt that we shall find that this condition of acute mania following the febrile disturbance of constitutional syphilis is not after all so uncommon, although I believe it has hardly been recognized hitherto.

Dr. Savage next passed to the third stage of the discussion: syphilis producing epilepsy with or without marked mental disorder. His experience was that there were epileptic cases with a syphilitic history with very definite lines, so that one has been able to say from a Johnsonian point of view, compared with Ferrier's and Hitzig's observations, there is a definite lesion there.

Dr. HUGHES. I would like to ask the Doctor one question in regard to his post mortems. He has stated that he failed to find the asserted syphilitic gummata in the motor points in his cases of unilateral epilepsy, etc. I would like to ask him if he failed to find foci of irritation there, either vaso-motor or vascular deposits, microscopically?

Dr. SAVAGE. I would at once say that in these cases there have been definitely no coarse lesions, and that although one got evidences of arterial disease, yet the evidence of the arterial disease was so

general that I was not able to say that on the left side there is definitely more arteritis than on the right, and I give that as my experience up to the present day. There is no reason why I should not be moved by future experience, but I have been so frequently disappointed at the post mortems that I think it well to record this negative experience.

Dr. SPITZKA. My experience regarding anatomical findings is in complete accord with that of Dr. Savage as to the absence of gummata. I have seen the case of a young quadroon who died with the most intense symptoms indicating rapid acute syphilis of the nerve centres, the patient dying in coma, where there was no lesion of any kind whatever that I could find. The question of the existence of *tabes dorsalis* interests me a great deal. I have had under observation the interesting case of an actor, who is still under my treatment, and whose disease is arrested, as it were, who has abolition of both knee jerks, the characteristic Argyle-Robertson pupil, unilateral ptosis, which is occasionally influenced by treatment and occasionally recurs, and this gentleman has had in the course of the day fifty or sixty attacks of a peculiar kind of petit mal, in which he first loses consciousness for a moment, sometimes while going upon the stage, but so briefly that he could recollect himself. On one occasion he had to cross a foot-bridge in the scene, and while he was going across he had an attack of this kind but went on as if nothing had happened, the petit mal losing its character as a loss of consciousness and becoming replaced by a peculiar sensory disturbance. He found that accompanied by the prodromal feeling all the faces in the audience were exactly the same; this sensation passed like an electric flash. He still has these peculiarities though they are rarer, and they have become a matter of interest to him and he studies their course and peculiar symptoms.

Dr. SAVAGE then proceeded to the fourth stage of the discussion: Syphilis producing Mental Weakness with and in some cases without any form of Paralysis.

In some cases I have seen, the patient becomes old prematurely, in consequence, I believe, of syphilis, and he rapidly degenerates. In other cases a paralysis, a monoplegia, a loss of sight or some sensory trouble may be the starting point of a similar degeneration. There has come to me to be a good group of cases in which progressive weak-mindedness follows constitutional syphilis. There is another group in which it is confounded with general paralysis which has been preceded by some motor symptoms, by

either the oculo-motor trouble, a monoplegia, a hemiplegia, in one by aphasia and in another by some other motor trouble, and there is another group in which some sensory trouble, some temporary loss of vision, some temporary loss of taste, of hearing, some aphasia which may be purely muscular or may be more, some temporary giddiness—these may be the first symptoms which are followed by progressive degeneration which is not of the same kind and not to be grouped with true general paralysis of the insane depending upon syphilis.

Dr. CHANNING. I would like to ask Dr. Savage one question. How would he classify these cases which he has just described? Where would he put them? They are not general paralysis, yet where would they appear?

Dr. SAVAGE. Organic dementia, I suppose, would be as good a classification as any.

Dr. CHANNING. Should the term syphilitic dementia be used? Are there enough cases of that sort to warrant the use of such a term?

Dr. SAVAGE. I should object to the term syphilitic. I should prefer to stick to the dementia. Organic dementia of a syphilitic origin.

Dr. GUNDRY. I think if there is any one thing characteristic of mental and moral manifestations of syphilitic origin it is that it is like some mighty agent behind very slight apparent agencies at work, and that the fact of these very slight agencies producing such anomalous symptoms, which can not be referred to those ordinary causes are the indications of something behind which we do not see, we do not feel, but which we vaguely have a knowledge of, and that that something is usually syphilis in its course. That is, I think, the bond of union between the cases that have been described. We have very marked maniacal symptoms apparently from very slight causes so far as we can ascertain if we exclude the hypothesis of syphilis. But when we find this capable of being brought in then these very slight causes and very great effects seem to go very naturally together. I remember very many years ago being called in consultation to see a lady who had some anomalous cerebral symptoms which defied all treatment. Among other things which her mother related to me was that her tone of conversation was so changed; it did not pass beyond the range of propriety, but there was a constant recurrence of topics that were alien to her ordinary current of thought; little *double entendres*, slight suggestions of smuttiness, and this so foreign to

her natural tone that it worried her mother. I suggested to the attending physician that there was syphilis in the case. I believe politeness alone prevented him from calling me a fool to insinuate that there could be syphilis in such a family. I told him to look out for symptoms and advised him to turn to specific remedies. In the course of events he discovered something which seemed of a syphilitic character and immediately put her upon treatment as I had suggested. After some years I had evidence in my hands how she had contracted the syphilis. I think I have met many cases in my life, just these anomalous cases, sometimes showing a little melancholia, which do not improve under the ordinary treatment for depression, which defied treatment until treatment of a specific character was applied when it gradually disappeared. So I think I have seen things of the same nature in which you can not make out a case which the books will classify, and it is just this very thing, this very great variation from trivial causes, which in my mind characterizes the ordinary mental disease from syphilis. So with epilepsy in the same way. As Dr. Savage has remarked we have a more rapid mental deterioration where syphilis is present than when absent, and I think I may add a deterioration which is not regained; that if there is a temporary improvement there is a retrogression afterwards very much greater, apparently making up the loss of time for the improvement. I think in all of these cases that is the characteristic thing.

Dr. SAVAGE then opened discussion on "General Pathology of Insanity Connected with Syphilis."

Further discussion was postponed until Thursday, and after the reading of a paper by Dr. INGRAM, of Washington, D. C., on "Gunshot Wound of the Spinal Cord," the Section adjourned to 11 A. M., Thursday.

The Section was called to order at 11 A. M., Thursday, September 8th, 1887, by the President, Dr. J. B. Andrews.

Dr. S. S. BISHOP, of Chicago, Ill., read a paper on "The Pathology of Hay Fever." The author classed hay fever among the neuroses, and could not from his experience subscribe to the pollen theory.

Dr. FERGUSON expressed himself as thoroughly in accord with Dr. Bishop's convictions.

Dr. CHANNING regarded Dr. Bishop's paper as a remarkably clear presentation of the subject. It was easy to accept his statements, but the difficulty lay in determining whether or not it

should be dignified by the name of a neurosis. We could understand that the disease was caused in the way he explained, but we had other similar irritations of mucous membranes which we should not be ready to classify in that way. We had for instance the irritable throat from which people in Boston and near the coast suffered. Such patients had to leave Boston in the spring on that account. We should not classify those throat troubles as neuroses in the strict sense of that term. Such cases certainly occurred more at one season than at any other, namely, early summer and spring. It seemed to him that there must be something favorable to their development, a strong outside cause, the essential element in etiology being a weakness of that special mucous membrane. The cases with which he was most familiar were those occasioned probably by the pollen of flowers or similar circumstances; coming on at that time in the spring when those influences were most prevalent, the only cure or palliation was a removal to new surroundings. People had to go to the White Mountains, the Isle of Shoals or some other place, Nova Scotia for instance. He knew of no remedy which was suitable for any form of nervous trouble that would actually cure those sufferers or produce a sufficient amount of palliation to make it possible for them to stay at home, and he must say in reference to a point in Dr. Bishop's paper that in the cases he had seen the nervous temperament was not in all of them prominent, though in a certain percentage it was so. He would like to ask Dr. Bishop if in the cases of Henry Ward Beecher and others he had mentioned there was an inherited neurotic temperament.

Dr. BRUSH suggested that like the temperance lecturer he might offer himself as a horrible example. Dr. Channing had referred to the question of pollen. He never had hay fever until five years ago, when he awoke in the middle of the night to find himself suffering acutely from it. Since that time he had had attacks ranging all the way from July until the fall. The first attack was in July, and this summer he was free from it until he reached Washington. Last night he was kept awake by a terrific attack of hay asthma. The neurotic temperament had been referred to, but he did not know that he was of an especially nervous temperament.

Dr. HURD believed in the neurotic origin of hay fever very strongly until this summer. The present season had been an unusually severe one upon nervous invalids. The intense heat of the months of June and July, continuing for many weeks, had depressed

the vitality of almost every person suffering from nervous diseases or predisposed to them. Now as a matter of fact hay fever sufferers had suffered far less than usual this summer. In many localities they had escaped entirely; in other places the attacks had been transitory and removal from home had not been necessary. In the section of Michigan in which he lived they had ragweed (*ambrosia trifida*.) Now while he did not suppose that ragweed was the only cause of hay fever, he was sure it was an extremely potent one. The climatic influences of the season had been such that ragweed had not flourished; it had grown very slowly, had flowered imperfectly, and he supposed in consequence its pollen had been very imperfectly distributed. The effect, in his opinion, was to secure an almost complete immunity from hay fever in most of the localities.

Another point which was difficult of explanation by the theory of the nervous origin of hay fever was the marked annual periodicity with which the attacks occur. He had a brother whose attacks began on the 18th of August at 2 o'clock in the morning, year after year. One could hardly think that a periodicity due to a state of the nervous system would display such extreme regularity. It had always seemed to him that the majority of persons suffered from these attacks at a time when the pollen of plants was generally and thoroughly distributed in the air, and that mechanical irritation had much to do with their origin.

Dr. ANDREWS commended Dr. Bishop's paper. It must be admitted that he had thus enumerated all possible causes of the development of the disease in ascribing them to a central, a peripheral and a climatic origin.

The reason that some could not recognize hay fever as a disease depending in all cases upon a neurotic diathesis was perhaps because the cases we were familiar with were due to one or the other of the two other causes mentioned, and not cases of central origin.

It did not seem necessary that we should have in all cases a neurotic diathesis in the individual. He regretted that Dr. Bishop had not gone into the matter of treatment and enlightened us upon that special point. He would like to know what he had found to be the best therapeutic measures especially in cases of central origin.

Dr. BISHOP. I should have been only too happy to have entered into the treatment of the disease but I found the time too limited. In answer first to a gentleman who spoke here and who asked if

Henry Ward Beecher and those patients who suffered from the disease were of a nervous temperament I would say that we must make a distinction between a diseased condition of the nervous system or a nervousness which may result from a condition of nervous disease and a nervous temperament. One may be a nervous individual, have a nervo-sanguine temperament and still have no disease of the nervous system. Take these patients suffering most severely; at other portions of the year they are in perfect health so far as any one can ascertain. There are some who suffer only in the hot portions of the year, while during the fall, winter and spring they are as healthy as anybody. Henry Ward Beecher was compelled to go to the White Mountains during the summer, leaving his lecture and other engagements and spending a number of weeks there, to escape the severe attacks of hay fever to which he was subject. He was a fleshy and a brawny man physically but he certainly had a nervous temperament. How many men are there in the world who have done as much as Henry Ward Beecher has who have not nervous temperaments? Now a man may have nothing but the hay fever. Now it is a strong argument, in my opinion, in favor of the neurotic theory, that they are not conscious of having any nervous trouble during the year, but let them be exposed to any form of suffering to which they are susceptible and they suffer most excruciatingly. So these people are susceptible to many things; they can not eat certain forms of food, shell fish, lobsters—I have had one or two patients who have frequently declared to me that eating strawberries would throw them into convulsions. I have now come to believe almost anything in regard to the abnormalities of the nervous system.

It is a fact that hay fever is usually experienced only during the most depressing weather that we have during the year. Its attacks come when the nervous system is subjected to the most depressing effect of heat. Still there are others who if they at any time enter a poorly ventilated hall are certain to have attacks of hay fever, not so severe as in midsummer, but they differ in people. They are attacks of hay fever, only less severe than those suffered from in midsummer.

Dr. ANDREWS asked if Dr. Bishop had any remarks to make in answer to Dr. Hurd's reference to the definite periodicity of the disease and its relation to its being a neurotic condition.

Dr. BISHOP. There is one case in my mind, that of Judge Grant Goodrich, who tells me that on the 20th of August, every year, if he remains in Chicago he is certain to have an attack of

hay fever. If he leaves Chicago he escapes. If he remains away during the whole season of his attack, which lasts until the first of September he is entirely free, but just so certain as he remains in Chicago just so certain on the 20th of August he has an attack of hay fever. He is as nervous and wiry a man as can be. Both he and Beecher possessed especially nervous temperaments. During the rest of the year the Judge has perfect health. Now can we reconcile the theory of the pollenists with this exact periodicity of the disease? We can not suppose that the pollen from certain plants, whether the season be advanced or retarded can reach these patients on exactly the same day, and at exactly the same hour in each recurring year without any exception? It is not reasonable to suppose that. There can be no such thing as the pollen of certain plants, for instance the ragweed, setting out each year and reaching the patient at exactly the same day and hour without exception. This is the experience of hundreds of patients in the United States.

Dr. BOWER. The Doctor has omitted to answer one of the most important questions, that is, in reference to the treatment he found most beneficial.

Dr. BISHOP. If I may be allowed, Mr. President, to digress from the subject of the paper I shall be glad to discuss the treatment of this disease.

The treatment so far has proved to be simply palliative and not curative in the majority of cases. There is one gentleman whose statistics I have in relation to treatment, who has treated quite a large number of cases, who claims that about 45 per cent of those which he has treated by the galvano-cautery applied to the septum nasi, has resulted in their complete or partial relief. I talked yesterday with another gentleman who has treated a number of cases in a similar manner who claims 75 per cent of cases were greatly benefited by treating the nasal cavities in that manner. I have found the use of a combination of sulphate of morphia and atropia in the proportion of one-fiftieth of a grain of atropia to one-half grain of sulphate of morphia to have the most beneficial effect. Do not imagine that I give half a grain of morphia at once to patients; it is very rarely that I have done that, but I have tablets in which morphia and atropia are combined in that proportion and I divide these tablets into four parts; they are small, compressed to about the size of a top of a lead pencil. That gives me one-eighth of a grain of morphia at a dose. Now if a patient will take one or two of these tablets when he feels the first premoni-

tion of the attack coming on it will usually abort it. If he feels it very severely let him double the dose and that will stop the attack. My plan is to give the largest dose that is safe, in order to prevent the attack, at first, rather than to give it in minute doses at frequent intervals, because if you give a sufficiently large dose at first to produce a profound impression upon the nervous system you are far more likely to prevent an attack than by giving small and repeated doses. Now it is not well to have a larger proportion combined with the atropine than this. In the pills for sale at the druggists it is combined with morphia in much larger proportion and I have had amaurosis produced by these pills. I would like to speak of a few other remedies, providing I do not take up too much time. Sometimes a cup of hot strong coffee will arrest an attack or prevent an attack of hay fever. Have the asthmatic patient when he first feels the symptoms coming on take a cup of strong coffee and this will frequently prevent the attack altogether. In the heat of summer weather it is well to have the patient take cooling drinks before retiring at night—these attacks often occur at night as we all know—lemonade, cold water or ice cream; something of that kind if taken will make him less liable to an attack.

In the daytime if he keeps himself cool he is far less likely to have an attack. Another thing is to have the patient run up a long flight of stairs as quickly as he can when the attack is coming on. I have used quinine in small doses during the days of great suffering from hay fever, and that will alleviate the suffering very materially. I do not want to say that it will prevent attacks entirely, but it seems to have an effect in deadening the sensibility, so that the discharge may go on undiminished and yet far less discomfort be experienced. But beware of too much quinine. It will produce a congestion of the ear; it will produce an irritation of the auditory nerve. I have been led firmly to believe that deafness was produced by overdoses and the long-continued use of quinine. I think there are many cases to-day whose hearing might be fairly good if they had never touched quinine.

The next paper was read by Dr. GUSTAVUS ELIOT, of New Haven, Conn: "The Treatment of Neuralgia in General Practice."

Discussion: Dr. CREGO thought it was our duty to see our patients frequently and not to attempt to treat them after their paroxysms had begun. If we used morphine we did not cure our patient; we established the morphine habit. He was very sorry to notice the emphasis Dr. Eliot had placed upon this method of

treatment. We did infinitely more harm than good in any way by the use of morphia. It was our duty to use arsenic and iron and that class of remedies only. Most cases could be controlled by electricity. Morphia and quinine were of very doubtful utility.

Dr. DUQUET referred to the hypodermic injection of chloroform in sciatica. He had had a good many cases and had always found that in the beginning of the disease deep injections of twenty drops into the muscles had relieved the paroxysms immediately. He did not think with Dr. Crego that simply because there was danger of the morphia habit being formed in some cases that the drug should be set aside in the treatment of neuralgia. He considered it a very useful remedy.

Dr. HEBER ELLIS, referred to the hydrochlorate of ammonia as a remedy that had been used in Germany as well as in his own practice with great success. He was inclined to believe that morphia should not be used in the first instance. Other drugs should have a preference. As to quinine I could only say that if it were used in such heroic doses as 30 grains he should think chronic deafness would follow, as a former speaker had suggested.

Dr. RUSSELL added his voice to those who opposed the use of morphia in the treatment of neuralgia.

Dr. GIRTSTROM, of Hermosands, Sweden, said that massage had been used with great benefit in neuralgia.

Dr. BROWER entered a protest against the wholesale use of morphia and quinine in the treatment of these sensory disturbances. No little share of his work was for the relief of people who by reason of these sensory disturbances had found themselves habitués of morphia. He believed that all ordinary cases of neuralgia, certainly so far as his experience went could be relieved without resort to morphia at all. He knew that there was a brilliant result, a great deal of eclat gained by the physician by instantly relieving the sufferings of his patient; every one was impressed with his power and the pain was instantly relieved, but it meant subsequent danger to the patient. Now the use of heat, sometimes the use of cold, the use of electricity—which one speaker objected to on account of its cumbrousness—the use of galvanic electricity by batteries, now so easily managed, so portable that they should be part of the physician's outfit, it seems to me will relieve ninety-nine cases out of one hundred. I know of no better way of treating sciatica than by massage. I believe there are few cases of it that can not be relieved by this treatment. Heat, massage

and galvanic electricity will certainly relieve ninety-nine cases out of one hundred without resort to morphia or such enormous doses of quinine. I can certainly endorse, too, the remarks of the gentleman from England, as to the value of the chloride of ammonia, a remedy of great value and certainly a remedy that patients will never get into the habit of using.

Dr. CLARK thought we must be guided in the treatment of neuralgia by its causes. If we found that our patient lived in a malarial district and that his neuralgia was periodic in its nature we would find that quinine and whiskey would be the remedies to be employed, and he believed all other remedies would fail to a large extent. If it was caused by some derangement of assimilation then appropriate remedies should be prescribed. Should the disease be local, a reflex, as we find in neuralgias from decayed teeth, then we had the remedy before us in extraction. It was utterly impossible to lay down rules for the application of remedies for all cases; the causes of the disease were multifarious and their manifestations must be observed and treated accordingly.

In regard to the morphia he thought the drug has its place—a very important one—in therapeutics. His plan was never to let the patient know what he was getting. If he gave it internally by the mouth it was with some nauseating drug of such bitterness that he had no fear the patient would ask for it unnecessarily. If he gave it hypodermically he never told what it was. This should be the rule to be followed by every physician.

Dr. ANDREWS spoke most highly of cod liver oil. In his hands it was one of the most important agents in the treatment of chronic neuralgia and he found nothing to compare with it. It was usually employed in emulsion which could be fortified by adding hypophosphites, iron, arsenic or other remedies. In all cases of anæmia, debility or lack of nutrition there was no remedy to be compared with it. The use of this and heat, by hot water bags, constituted very important means in the treatment of neuralgia.

The next paper was read by Dr. RUSSELL, of Winchenden, Mass. "Border land, Early Symptoms and Early Treatment of Insanity."

Dr. GUNDRY. Dr. Russell has brought together the usual array of great persons with some single apparent departure from healthy mental action, who saw visions, heard voices, or suffered from a fit of some kind and corralled them all in the border land of insanity. With these he has coupled the poet Cowper who was really insane, who had many attacks of insanity with intervals more or less perfect of health, during which he wrote some of his poems—the last most beautiful and saddest of all written as his

genius lighted up fitfully before sinking into final darkness. I allude to the Castaway. Now Cowper certainly did not rest on the border land, but spent most of his life in the undisputed domain of insanity. Then Julius Cæsar and Napoleon had epilepsy, which did not impair their intellectual power. So epilepsy is a part of the border land! Now where is the proof of the oft repeated assertion that they were epileptics? Suetonius, Cæsar's critic, if I recollect rightly, but I confess I am rather rusty in the classics, only mentions two instances of Cæsar fainting, swooning, or becoming unconscious, both from exhaustion after great fatigue. Supposing these were "fits," is it fair to call a person who has one or two attacks of doubtful significance an epileptic, or say he suffered from epilepsy? Where is the evidence that Napoleon had epilepsy. There is a tradition that on a certain occasion a lady said he had a fit under peculiar circumstances, but that is all. Upon these bare assumptions is built up the theory that epilepsy produces no mental defect, and a false comfort infused into the friends of those who really suffer from such attacks. Now for the other "Borderers." If a man of great intellectual power happens to say or do anything different from what we *in our day* consider sound we dub him by some bad psychological name, class him as insane or at least relegate him to the border land. We forget that not by our standard, but by the environment which encompassed him and moulded his habit of thought and action, must we judge him. What is to us a delusion, may have been the universal belief, accepted without hesitation and without any enquiry as to its probability. If Luther, tired by an exhausting period of study, isolated from his friends, in solitude and depression, saw some image which he took to be the devil, he simply adopted the explanation which accorded with the universal belief that the enemy of souls could appear to men—could talk to them and hold intercourse in various ways. He threw an inkstand at him and the spectre vanished—an allegory perhaps after all, that the spirits of darkness are best dispelled by instruments that diffuse knowledge. Now an author in Boston apologizes for what he terms Luther's delusions, that he saw the devil, and threw an inkstand at him "at a time when the belief in a personal devil was required by the Canons of the Church of England." What Luther had to do with the Church of England is not clear, when we remember that Luther died before the Church of England took form as such. He died in 1546—the thirty-nine articles of belief of the Church of England passed the Convocation 1562—sixteen years afterwards. Besides, Luther

never had any relations with the Anglican Church. So about Pascal. A terrible accident had so impressed his sensory system, that he saw a yawning abyss before him, and fearing that when his attention was concentrated upon his extraordinary mathematical studies, he might unconsciously yield to the reflex influence of that impression, he had himself tied in a chair while engaged in such studies. He had no delusion about it—only his attention being absorbed by other objects, he could not always correct the impression made upon one of his senses, by calling up the evidence of the other senses.

One learned author, I wish very much he were present to hear me, stigmatizes Dr. Johnson as a monomaniac—the most robust intellect of his age—because he was once seen reading a book for the amusement of some boys. Then again as he was putting his key into his college room door he heard his mother (sixty miles away) call “Sam.” Some sound arrested him—he had been careless about his parents—now remorse interprets the sound as “Sam;” recalls him to his duty and without investigation he accepts the solution—“his mother had called him.” It was the popular belief, that spirits good and bad thus ministered to mortals and he believed as the world believed in ghosts and spiritual influences, accepted them thankfully and without such inquiry as he would have undertaken about doubtful matters in other regions of knowledge.

Another author has fallen foul of John Bunyan, whose vivid imagination personified the struggles between his lower and better nature, and in accordance with the popular belief of his time ascribed the evil suggestions of the former to the direct interposition of the devil, who voiced to his vivid imagination the words in which they were clothed. Such a mental struggle in such a nature was intense, but it was in accordance with the healthy development of his nature and he was too grateful for the glorious outcome to scrutinize closely the grounds of his belief in the temptations of the devil. They did not lead him out of his healthy course; they roused his mental vigor, strengthened his better nature and ennobled his life of thought and action. Such are not delusions nor the fruit of the border land. The same remark will apply to many other cases, the vision of Col. Gardiner and Mary. To speak of these men as belonging to the border land, the recruiting grounds for the asylum is a misapprehension of terms against which I protest.

Dr. PORTER. Turning from the scientific to the practical side

of the question, I think Dr. Russell has given us some of the best suggestions that have been brought before this Section. It is generally readily admitted that chronic insanity and epilepsy are but the expressions of organic disease of the brain. Before the grosser lesions appear there is a nutritive defect that comes in advance of structural changes, and these nutritive defects of the brain occupy the border land as referred to by Dr. Russell. The time that the most benefit can be done to these patients is during the nutritive changes that precede the structural and organic defects. In calling the attention of the Section and of the profession to the best means of aiding these people who occupy the border land and go on eventually making up the great body of insane and epileptic he is educating the profession, and through them the people, to the better plan of caring for these people who are on the road to brain disease. All the Southern States are well provided with State institutions, but private institutions, such as the Doctor suggests, are lamentably deficient. These patients are left at home among their friends until they become dangerous and must be secluded, when if cared for at the proper time and in the proper manner, by a relief from the environment which has developed and brought about the earlier manifestations they could be cured and restored to society.

Dr. HEBER ELLIS. There is one point which thus far has not been considered in connection with this matter, and that is that nervous patients do not, unless compelled, go to any of these institutions. They may be very pleasant and cheerful, everything done to make them so, but it has very little effect upon their minds. These attractions can hardly be realized until they are there, and the trouble lies in getting them there. In England we think we have hit upon a very good plan, by legally allowing medical practitioners, indeed any respectable householder, to take a single patient. These patients may be placed under certificate if it is necessary and then they are regularly visited by commissioners who see that there is no abuse. If they are in the house of a lay householder they must have a legal medical attendant; that is to say a medical attendant who must visit them at least once in a fortnight and who in a book kept for the purpose must register the state of the patient at the time of his visit. Now, sir, I think that is an exceedingly useful system. The patient is removed from his unfortunate environment, is placed under altogether altered circumstances and though these may not be more pleasing than his home, yet it constitutes a change of

thought, of feeling, a change of air and diet, and such single patients do remarkably well. There is one great difficulty in the matter and that is the question of expense. A single patient must necessarily be more costly as such single patient than where he would be one among many, but it is found that that may be gotten over very well by placing the patient in the care of persons whose position corresponds to some extent with the class of society to which he belongs; that is to say, the poorer patient may generally find some humble household where he may be placed and he receives here better treatment even than he would in a better household where the disposition might be to place such a patient out of the way. I myself have taken single patients and they are very remunerative. They are willing to pay exceedingly well and under these circumstances the physician often finds this a very useful adjunct to his professional income. No more than one patient can be taken and the consequence is one patient is not exposed to the influence of the delusions of another. I can only say that that system of treatment in England is allowed to be the very best to be adopted in almost every case. It is only the question of expense, as I have said, that keeps it from being more generally adopted. I need not say that there is a great relief to the feelings of the patient as well as to his family after he has recovered, to feel that he has been under treatment and has been considered as a member of the family rather than returning from an asylum, which is after all, an indignity in its want of liberty. No matter how much people may talk about open doors, &c., it is absolutely necessary to deprive these patients of their liberty when they are sent to an asylum.

After the reading of a paper by Dr. EDWARD COWLES, of Somerville, Mass., on "Nursing Reform in the Care of the Insane," the Section adjourned to 3 P. M. (See page 176.)

The Section was called to order at 3 P. M., Thursday, September 8th, by the President, Dr. Andrews.

Dr. W. W. GODDING read a paper on "Insanity as a Defense for Crime."

Prof. MENDEL delivered a short address on "Moral Insanity." This term he maintained should be stricken from the nomenclature of mental diseases.

Dr. CHANNING. The view which Prof. Mendel has expressed here is one which is universally accepted in this country, that moral insanity should be thrown out of classification and that

either imbecility or paranoia, or something more tangible and definite should be substituted and if that were done we should be able to explain matters more understandingly in courts of law.

Dr. SAVAGE. It seems to me that we are obliged to use some terms provisionally that we do not intend to erect into titles for diseases. I think if we do not recognize such a term as moral insanity we are left in rather an awkward position, frequently. There are undoubtedly some who never grow to what may be called the moral standard of surrounding society, and those cases have been called cases of moral imbecility. Now there at once we should come to a confusion of terms if we class all cases of moral defect as imbecile or chronic insanity such as described as paranoia and so referred to by Prof. Mendel. There also seem to me to be certain cases that are morally oblique; who never grow up to the standard. Then there are people who have moral scars, who do not seem to me to deserve the term paranoia and do not deserve the term imbecile unless you unduly extend the term imbecile. Most of us I suppose are perfectly familiar with cases which seem to recover sufficient intellectual ability to perform all the functions they did before, but with some defect; with some moral scar; at all events it is a common thing for me to see in England ladies who having had an attack of puerperal insanity have difficulty in keeping themselves from stealing, still others who are unable to control their lust for drink and other things, and we should be extending the term imbecile very far if we were to call all those who have just this moral defect imbeciles or drunkards. I quite think with Prof. Mendel that it is necessary that we should be very careful in courts of law not to make use of terms that we can not define as we can imbecility or paranoia, but when we see a less definite influence we must still be careful in our definitions. Though I agree in the main with Prof. Mendel I can not help thinking that provisionally, at all events, we have need of the term moral insanity, though we do not erect it into a definite or definable form of disease.

Dr. HUGHES. Prof. Mendel has evidently encountered in his country the embarrassment which we have met with in our own. He has encountered a popular prejudice against the term moral insanity, and he has also experienced the difficulty of explaining that term in a manner to have it comprehended by the public and the courts to mean something different from the insanity of deviltry. Now I think that moral insanity as defined by Prichard is a fact beyond question. I do not understand from what I heard

Prof. Mendel say that he would obliterate the fact, but simply remove the use of the term. In order to do this I would substitute a state of imbecility, a state associated with congenital mental defect, rather than of acquired disease. Now while I am a firm believer in the existence of moral insanity as understood and interpreted by Prichard as a form of mental aberration which displays itself mainly in the disturbance of the affective life of the individual as distinguished from his purely intellectual life, which need not, therefore, be associated with tangible and discernible delusions, I do not think that any process of reasoning or any efforts that we may make will enable us to obliterate that clinical fact that we recognize in psychiatry, moral insanity as a form of mental disease. I do not think it is well for us to quarrel among ourselves about the use of terms so long as we understand what each individual means. I am perfectly willing that Prof. Mendel should recognize that particular form of psychical aberration which Prichard designated as moral insanity and explain it to the courts as moral imbecility. It means the same thing and is often a preferable method of explaining it before courts. But the fact remains the same that there is a condition of the brain in which, so far as standard delusions are concerned, disease is not manifest. Prichard made a mistake in giving it this name, as before courts it is considered to be the insanity of devilry while otherwise it is the effect of mental aberration; an imbecile state of the cerebral organization or an acquired disease. So far as my own experience goes it may result from both conditions. It may be a condition congenitally acquired, and it may be engrafted by a subsequent disease. I believe in the fact of moral insanity without quarreling with any individual as to how he may choose to designate it.

The President announced that the following papers would be read by title and printed in the Transactions of the Congress:

"Experimental and Clinical Observations of Cocaine," by Dr. M. ROSENTHAL, of Vienna; "Left Hemiplegia from the Destruction of the Right Parietal Circonvolutions succeeding to a Vegetative Endarteritis," by Dr. LOUIS FRIGERIO, M. D., Alexandria, Italy; "Hospital and Asylum Construction for the Insane," by Dr. P. M. WISE, Willard, N. Y.; "Obscure Forms of Epilepsy, with Cases," by CARLOS F. MACDONALD, M. D., Auburn, N. Y.; "The Relation of Psychological Medicine to the Disease of Inebriety," by EDWARD C. MANN, M. D., of Brooklyn, N. Y.

Dr. SAVAGE resumed debate by discussing Syphilis in relation to General Paralysis.

In regard to cases of syphilis of long standing which have been followed by general paralysis with acute symptoms Dr. Savage gave two illustrations. He said: "Under this group of acute cases I have seen several in which after 17, 18 or even 30 years' standing of syphilis there has been a sudden outbreak of general paralysis, and in several cases ending very rapidly. Even in the best cases I have been able to exclude evidences of intemperance or of other exciting causes; in fact I was able to exclude almost every other cause of general paralysis with which I was familiar.

Speaking of another group Dr. Savage continued:

A man contracts syphilis, suffers comparatively little from constitutional symptoms, but when he is about 30 or 40 he begins to get weak, his memory is impaired, there is alteration frequently in his reflexes, sometimes defective, later on he has some eye trouble, such as loss of sight or impairment of vision on one side or both, later greater tremulousness in speech, a change in his handwriting, and the man proves to be a case of ordinary general paralysis. Of course of all the people who have syphilis a certain natural proportion would die, I suppose, of general paralysis in any case, and I would therefore lay less stress upon these cases than upon many others. I would simply say that I have a considerable number of cases under my care of ordinary general paralysis of the insane, running a perfectly ordinary course with no longer and no more frequent remissions, with fits and sometimes without fits, in fact in no way separable from ordinary general paralysis with very definite histories of syphilis.

I suppose every one of us who sees a patient with corneal nerve paralysis asks almost automatically of the patient, when did you have syphilis? I know that directly we get ptosis, external strabismus and the dilatation of the pupils the most common cause of these symptoms we suspect is syphilis. Well, I have seen many cases with the following history. Ptosis, external strabismus, and dilatation of the pupil in men who from five to five and twenty years have had constitutional syphilis and thought very little about it. They then become alarmed, go to an oculist he recognizing the specific symptoms treats them generally pretty freely with mercury, and the symptoms all pass away. I have seen in four years from twelve to twenty patients who, having recovered from the local lesion, sooner or later become weak-minded and become so in the ordinary sense of the term, as I referred to it yesterday, but develop symptoms of general paralysis of the insane. A German merchant now in Bethlem had that history. This man, a

successful and hardworking merchant, a married man, entirely sober, without a family, developed ptosis and external strabismus, was treated by a London oculist and recovered. He went back to business and everything seemed to be going on very well but his friends noticed that he seemed to take things a little more easily. Twelve months ago he began to drink more than he should and this had an unusual effect upon him. He was extravagant, his handwriting was changing, he was dropping letters from his words, his speech was losing its crispness, his tongue had become expressionless and tremulous, his skin had become greasy and he passed from the stage of paralysis with great exaltation into the half-weak-minded state, and was in this condition when I left town. There are several cases in which general paralysis of the insane has followed temporary aphasia; a man has had an attack of syphilis and following that syphilis there has been a temporary attack of aphasia which has been recovered from and later on there has been a development of true general paralysis. To sum up, as time is of importance this afternoon, I am quite used to seeing cases that have been diagnosed as suffering from syphilis develop later after they have been treated and appear to have recovered from the local specific lesion, I have seen them repeatedly break down with general paralysis of the insane. I have seen also patients in whose cases there has been motor loss or sensory loss. Cases in which there has been ptosis, cases of monoplegia, cases of hemiplegia, cases in which there has been a simple aphasia, cases of aphasia with hemiplegia, some with paraplegia in which there has been simple sensory disturbance, such as loss of sight in one eye, or loss of sight associated with loss of hearing and giddiness. I would like to refer in parenthesis to one group of cases that has greatly interested me. I have already spoken of the general paralysis which may start in the brain. I would also like to say a few words as to general paralysis starting in the cord. In introducing the subject I would say that there are a number of writers who recognize the fact that those patients who suffer from locomotor ataxy, if we call that a disease and not an assemblage of symptoms, the largest number of them have got some syphilitic history; and one finds that among cases suffering from general paralysis of the insane a very fair proportion of them begin with locomotor ataxy. Well of course there are two or three groups; those who begin with locomotor ataxy and develop into general paralysis of the insane, and those who begin with the ataxy and the general paralysis develops about the

same time. One man at Bethlem was a most marked case of locomotor ataxy, with general paralysis, both symptoms starting together and keeping a perfectly parallel course. Besides those one gets more frequently, I think, cases of general paralysis in which syphilitic histories are present, with what I have called spastic symptoms, more for convenience, and in contrast to the ataxic symptoms and implying a general likeness.

My experience is that general paralysis which depends upon syphilis may run a somewhat unusual course in so far as the remissions may be more frequent and the remissions may be more prolonged. One patient at Bethlem under my care with typical symptoms of general paralysis of the insane after about six or eight months' treatment recovered sufficiently to be discharged on leave. After twelve months' leave of absence I heard from his wife that he was in command of a ship and that his former employers can not detect any loss of his faculties whatever. Another case is that of a clergyman recently under my care who had so complete a remission that he performed all the duties of a chaplain in the south of Europe during the whole of the early spring. This man hardly came under the class of complete or short remissions, for in four months he had fresh outbreaks, and these I think will terminate fatally. I believe that if one could only see those cases of reported cure of general paralysis of the insane it would be found that nearly all of them belonged to these cases of syphilitic general paralysis. My own experience is that I have seen only one thoroughly well-marked case of general paralysis of the insane appear to get well; that is, he was able to administer his affairs for some years, but he died ultimately of some obscure nervous disease under Dr. Ferrier. Unfortunately no post mortem was allowed, and I am still inclined to think that though apparently cured it was only a case of syphilitic general paralysis in which there was a prolonged remission. My belief is that general paralysis of the insane is a degeneration which may be set up by many causes. There is no special form of general paralysis which depends upon syphilitic changes; we may have quite a large number of cases of general paralysis in which there is a syphilitic history, yet not every case of general paralysis with syphilitic history depends upon syphilis. But I feel quite sure that there are one or two definite groups in which there is no doubt whatever, and my belief is that the most important one is that in which local lesions of the nervous centres are present—I fear I am not able to say what these lesions may be. In speaking of the pathological

changes yesterday I said there were no gummatous changes found. I believe if any are certainly dependent upon syphilis it is those cases where the symptoms are first of local nerve cranial lesion followed by more or less recovery, followed later by degeneration; and my belief is that in the majority of these cases the old lesion has formed a focus of degeneration. The only other group generally syphilitic are those ataxic cases in which the ataxic precedes the paralytic symptoms by some considerable time.

Dr. MENDEL discussed the subject in German.

Dr. MICKLE. The first group mentioned by Dr. Savage is one in which I have seen very few cases. But the other two he mentions I have often seen; cases in which the syphilis was a cause of general paralysis. I have seen these cases, cases in which the patient has constitutional syphilis, later on has general paralysis, and there is nothing in the course, the duration or the complications of the case to make one think that it is in any way different from the ordinary every day case of general paralysis. All that you can say is that the man has had constitutional syphilis and now has general paralysis, and that neither through life nor at the post mortem is there anything different from ordinary general paralysis. Then the other group in which there was at the beginning of the case local motor symptoms, the patient suffers from some local motor paralysis or sensory symptoms; also from nocturnal headache, sometimes, and such as a symptom as anæmia is prominent in these cases. In the cases where the local unilateral spasms and local spasms are followed by paralysees these paralysees usually clear up but they usually cause this condition of things, that the patient gradually takes on a hemiplegia which steadily progresses and becomes more and more complete. From time to time there are paralysees following convulsions, but the condition usually terminates in a more or less extended hemiplegia, accompanied by contortion or rigidity of the affected limbs of one side. Then you have often the occurrence of ocular paralysis, and I have often found very distinct evidence of neuritis of the nerve trunk itself. As regards the mental symptoms dementia predominates very strongly. Of course you have cases of general paralysis that take on a demented form, but in these it is more than usually prominent. Then when you come to the necropsis there is in these cases a pachy-meningitis, a local one, affecting the dura on one side. The thickening of the soft meninges is not so diffuse in very many cases as usual. The thickening is found on the one side, and on one side such abolition of the meninges and the sur-

face of the convolutions and erosion of the convolutions as is so often found in general paralysis. Not only so, but one side frequently undergoes an unusual degree of atrophy. Together with that also there is often a somewhat diffuse yet a circumscribed sclerosis affecting a greater or less tract of the cortex of the brain. That I have frequently found existing upon one side chiefly or upon one side only; affecting usually a large portion of the frontal lobe, but not strictly limited. Of course this is found sometimes in cases of general paralysis.

There is another group of cases which I think forms a link between cases of brain syphilis and general paralysis. The patient often takes on the form simulating the demented form. He has probably epileptiform convulsions, a local paralysis more or less marked, a paretic condition of the muscular symptoms, and often a monoplegia. Such patients often die of epileptiform seizures, in epileptic status. At the necropsy you find the cerebral blood vessels, particularly those of the circle of Willis, with their coats enormously thickened. Then sometimes there are growths that are really syphilomatous, really a gumma of the arterial coat. In some such cases there is a diminution or encroachment of the lumen of the vessel and often the smaller arterioles of the vessels are affected. This explains the degeneration which does not ensue in these cases. In consequence of syphilitic arteritis affecting the walls of the large blood vessels, and in consequence of the syphiloma affecting their coats and the thickening of the walls there is an obstruction of the circulation and a tendency to thrombosis. As a result we get local softenings, and these give symptoms of ordinary paralysis. In these cases there are gummatous infiltrations affecting other than arterial walls, and in these cases we often find besides the softenings a more or less extended area of adhesion of the pia to the cortical convolutions.

I wish to express my general concurrence with the views of Dr. Savage.

Dr. DOWN. I have had a great deal of experience in London hospitals in locomotor ataxy cases, and I think they are nearly all of a syphilitic character; that they all respond to anti-syphilitic treatment, and that they are as a rule syphilitic. I am very strongly inclined to the belief in the syphilitic nature of locomotor ataxy. Is there any connection between locomotor ataxy and general paralysis of the brain? I have had the opportunity of following out several cases very closely. One was that of a chaplain in a Welsh prison who came under my care with loco-

motor ataxy of very marked and progressive character. There was not the slightest lesion. No anxiety was felt upon that score. He kept his appointment in the prison for several years. After ten years it was observed that he had some signs of exaltation. These became progressive, he began to run down rapidly, went into general paralysis and died in about eighteen months after the first attack.

Dr. YELLOWLEES. We are all apt to have and do have constantly cases of general paralysis with constitutional syphilis running its ordinary course and without anything exceptional whatsoever about it. I think we want to be careful in our deduction as to the effect of syphilis on the history of the disease. They unquestionably coincide and concur in the same individual without the general paralysis being at all perceptibly modified thereby. That being so I think we want to be careful about our deductions. I concur, however, emphatically with what Dr. Down and Dr. Savage have said about the probably syphilitic origin of those cases which begin with spinal symptoms. The result seems to be that in cases of general paralysis occurring in patients with a history of constitutional syphilis, however, that we have the disease modified to a greater or less extent by local paralyses—and by a greater tendency to local paralyses than in the ordinary cases, and that this is the whole of the matter; at least I don't know that our present knowledge gives us further light than this gives us.

Dr. NICHOLS. Mr. President: I will only take the time of the Section long enough to say that I treat a good many cases of general paralysis of the insane, and have the misfortune to lose from fifteen to twenty by death every year, and I have studied as carefully as I have been able to, the cause of the disease. In my experience I have only been able to trace the existence of a syphilitic disease or hereditary taint in about half the cases, and allowing for some uncertainty, in other cases it has been my opinion that about two-thirds of our cases have had or may have had syphilis. In respect to the remaining third it seems to me that it is pretty clear that they have not. I sympathize with what fell from Dr. Yellowlees. I have really doubted whether syphilis was an essential cause of general paralysis of the insane. It seems to me that those cases that I have not been able to trace to syphilis run their course more regularly than those that I can not. I have never been able to benefit a patient who has not had syphilis by anti-syphilitic treatment, but I have retarded the disease in many

cases in which I knew the patient had had syphilis. My opinion upon the subject of the specific character of general paralysis as a disease is not worth much. I think my friend, Dr. Spitzka, is perhaps the best American authority. I think he is really very much the best American authority upon this subject, and if there is time I should be glad to hear from him.

It has appeared to me, I might add, that in some way the mental degeneration of the brain did take on a specific character although it is accompanied undoubtedly by gross lesions that are common to other forms of brain degeneration; and I may add that I have supposed that excessive venery, excessive intellectual labor and loss of sleep were the most efficient causes of general paralysis of the insane. These causes, it seems to me will cause this form of mental disease independently of syphilis. It has seemed to me and does seem to me that syphilis is not an essential cause of general paralysis of the insane.

Dr. SPITZKA. While agreeing with every material point advanced by the distinguished superintendent of Bethlem I feel constrained to differ regarding the subsidiary question of nomenclature. In matters of nomenclature we are apt to strain at a gnat and swallow the camel. We use the terms post-febrile, post-epileptic and senile insanity every day. In every asylum we are shown cases of puerperal and masturbational insanity. In reply to the challenge made here yesterday as to the existence of any specific single symptom that distinguished syphilitic insanity I would like to ask what specific symptom characterized any other etiological form. The clinical grouping of symptoms could be pointed to, as being as specialised in the one as in the other case.

There does seem to me to exist a group of cases in which with a background of progressing dementia, the suddenness of development of certain motor symptoms and the suddenness of their disappearance, as also a peculiar lacunar disturbance of the memory separates them from ordinary parietic dementia. Pathologically I think they are characterized by two sets of changes, first a peculiar form of endymal granulation in the ventricles. In ordinary hydrocephalus, parietic dementia, and epilepsy the granulations are warty. In syphilitic dementia I have found them reticular like the ridges of butter left in separating the halves of a sandwich. In the central tubular gray, particularly of the mesencephalon—and this accounts for the oculo-motor troubles—small hæmorrhages are common. I have brought with me and

have shown to some of the members present, specimens in which the exact localization of a combined internal rectus and accommodation paralysis was possible. Both anatomically and clinically this disorder differed from ordinary paretic dementia of syphilitic origin. Among the accessory causes of the latter complaint tobacco is a most important one. One constantly growing evil seen in large capitals is the habit of imperfect coitus indulged in for the prevention of conception. This has a most deleterious effect upon the spinal apparatus. Another is the vicious habit indulged in by those who are losing sexual power. These certainly are causes of locomotor ataxy. I believe that wine, women and worry are the most potent factors in causing general paresis.

Dr. HUGHES. Before the discussion closes, lest the subject should be overlooked, I should like to ask Dr. Savage or Prof. Mendel, or any of the other gentlemen who have paid special attention to post mortems in cases of general paralysis, whether they have had opportunities of making post mortems in any of these cases which have died during a remission—of intercurrent disease. I have a conviction that there is something—a vascular condition a microscopic vascular condition which will ultimately be discovered to have preceded the coarser structural microscopic changes which we see in the arachnoid vessels in general paralysis. Now I have in mind two clinical cases which so far as I was able to discover by a close watch of the patients have apparently entirely recovered from what—if my experience at Fulton was sufficient to enable me to judge—was general paralysis; whether they are going to stay recovered or not is a question which I can not answer. I suppose the only way we can get at the facts is to be careful to make investigations of these cases which die of intercurrent disease during a remission. As you know we are now at a stage in regard to general paralysis of the insane—we stand much as our ancestors did in regard to phthisis pulmonalis and in regard to Bright's disease and other affections which have been classed as incurable but which may yet be proven to be curable in certain stages and under certain circumstances. I believe general paralysis will yet be classified as a form of curable disease if taken early enough for treatment, not after they are sent to asylums but those cases which come under the observation of the neurologist and psychiatrist before they become fit subjects for the asylum. I have a conviction that the paralytic stage is one of capillary hyperæmia and the question to be gotten at is one which our pathologists must study out for us.

Dr. SAVAGE. As to the question of vascular changes I have quite thought with Dr. Hughes that if any cure is to take place it is to be when the case is taken early. The longer we have experience with the disease and the more we get the early history the length of time which the prodromal symptoms have existed is extended. I have within the last five or six years made it a rule when a patient became certainly and undoubtedly general paralytic and was recognized as such by his friends, then to issue a form of questions as to the very earliest changes in character, in handwriting, in vision of one kind or another, and in a very large number of cases, eight, nine, ten or even twelve years before the patient became fit for certificates there were signs of the disease, but I think that not in one case out of ten thousand would we be able to persuade the patient that he required rest or treatment. Especially in some cases with syphilis, I think early treatment will do good; but I am afraid the time is very far distant when we shall be able to persuade those who break down with general paralysis that they required treatment years before.

Dr. MICKLE. Dr. Savage has hardly replied to Dr. Hughes' question. There are always found lesions in paralytics who have very extreme remissions and then die without the symptoms ever recurring; for example, they take a severe convulsion and die and the lesions are seen in these cases as in general paralysis.

Dr. HUGHES. Dr. Mickle has not quite answered the question. I asked whether there were ever found cases where there was no appreciable lesion found after death when the patient died during a remission; from pneumonia, for instance.

Dr. MICKLE. The cases I speak of were insane enough to have come under my care, and they died during a remission. Those were precisely the cases to which I did refer.

Dr. BRUSH. So far as one case will answer Dr. Hughes' question I might cite that of a general paralytic who died of phthisis during the first remission without any return of the mental symptoms. It was a question in my mind at the time whether the phthisical trouble did not act like the carbuncular affection which Dr. Savage reported yesterday as bringing about a remission. The characteristic lesions of general paralysis were found at the post mortem.

Dr. HURD. I would like to ask Dr. Savage a brief practical question. Granting that we have cases of general paresis of unmistakably syphilitic origin—I think we all agree that we do

find them—is there any reason to anticipate benefit from anti-syphilitic treatment?

Dr. SAVAGE. Some patients undoubtedly with syphilitic histories who are suffering from general paralysis of the insane rapidly pass under such treatment into conditions of temporary remission. The only cases of prolonged remission that I have seen or nearly all the cases that have syphilis and have prolonged remissions were treated very definitely anti-syphilitically.

To take one case under this head, an acute case of general paralysis springing up very suddenly in a case of chronic syphilis it was that of a patient who had other complications, but there was no doubt about the syphilis. He had constitutional syphilis at the time. He had a very acute attack of maniacal excitement, refused his food and looked as if he would die rapidly with exhaustion. He was treated anti-syphilitically and instead of getting worse so far as the stomach was concerned he began in two days to take his food freely, and within ten days or a fortnight passed into a state of remission. It seems to me that if not cured these cases are relieved—chiefly these cases in which we have got a history of syphilitic lesion. The consensus of opinion seems to be that I was right in saying that some cases of general paralysis undoubtedly come from syphilis. There is considerable difference of opinion between Prof. Mendel, Dr. Mickle and myself, but this I expect will be found to be cleared away in time. We are cautioned by Dr. Yellowlees, and I take the occasion of saying that I agree with him when he says we have reached in the syphilitic tide of pathology the highest point, and that it is now time to mark a shore line. I think the border land that Dr. Spitzka has referred to, the cases of syphilitic dementia are the ones about which we shall always have the greatest difficulty. I do not pretend for a moment to be able to say when a case is brought before me: This is a case of syphilitic dementia that will live for years, and which might fairly be called dementia organica. I do not pretend to be able to say that, nor to say this demented case will not take on a more acute process and end as a general paralytic. I do not believe there are any defining lines in these cases. I think we are perhaps too prone to be definite in these matters, especially since we know comparatively so little of the relationships between syphilitic dementia and syphilitic general paralysis. Accept dementia in these cases, and if they end in this way let us say they are cases of general paralysis of a demented type starting with syphilis.

This closed the discussion.

Dr. J. LANGDON DOWN offered resolutions of thanks to the presiding officer for the efficient manner in which the duties of his office had been performed. These were carried unanimously after complimentary speeches by Drs. DOWN, MENDEL, YELLOWLEES and others.

Dr. SPITZKA offered a resolution of thanks to the Secretary, Dr. Ferguson, which was carried unanimously, and on motion the Section in Psychological Medicine and Nervous Diseases of the Ninth International Congress adjourned *sine die* at 6 P. M.

[Stenographically reported for the AMERICAN JOURNAL OF INSANITY by
T. E. MCGARR.]

ABSTRACTS AND EXTRACTS.

PARAMYOCLONUS MULTIPLEX.—Dr. M. Allen Starr reports in the *Journal of Nervous and Mental Disease* for July, 1887, a typical case of paramyoclonus multiplex. It is described as a spasmodic affection of the muscular system occurring bilaterally in symmetrically situated muscles attached at one or both ends to the trunk, and in muscles whose function is associated with these, consisting of a series of violent clonic spasms of considerable rapidity and severity, occurring only at intervals, and associated with tremors of the affected muscles, persisting during the interval between the spasms. It occurs after some mental or physical strain, and is not accompanied by any disturbance of sensory or motor functions, except by an increase of the superficial and deep reflexes. It can be excited by irritation of the skin or tendons. The prognosis is favorable. The treatment most serviceable is the application of strong galvanic currents to the spine and neck, and the application of the anode to sensitive points, where these exist. Nerve sedatives and tonics have been used with good effect. The hypodermic use of arsenic has been recommended by Hammond. Prof. Schulze, of Heidelberg, made a careful examination in one case, which died of phthisis, but failed to find any lesions of the nervous system. Friedreich, who was the first to describe this disease, believed it to be of central origin, produced by a hyper-excitability of the brain or spinal cord, induced by the sudden vaso-motor spasm accompanying fright or mental or physical strain. Dr. Starr thinks that his case supports the view, advanced by another author, namely, that it is due to some peripheral irritation which, being conveyed to the spinal and medullary centres, produces the spasm reflexly. Only nine well authenticated cases have been reported. According to Dr. Starr the affection described by Hammond in 1867 as "Convulsive tremor," is not identical with paramyoclonus multiplex, neither does he think that that described by Dr. Althaus, under the name of "tetanilla," should be considered as the same disease. The credit of its first description undoubtedly belongs to Friedreich.

INTELLECTUAL EVOLUTION AND ITS RELATION TO PHYSIOLOGICAL DISSOLUTION.—"I have endeavored to show that intellectual evolution, as represented by modern civilization, will, by overcrowding, the unequal distribution of wealth, and social changes incidental to these two factors, lead to an increase of the tendencies to disease, therefore to physiological dissolution. Every nation must have its period of growth, arrest and decay. Wise legislation, no doubt, can do much to stop the inevitable process of dissolution. So far our town populations have been saved from excessive degeneration by the continuous ingress or migration of the rural population; but in England agriculture is fast dying out, and the peasantry are becoming far less numerous than the town populations. For example: the whole of Scotland does not contain so many people as the metropolis. Therefore this refreshing influence on the town population has almost reached its limit, and it seems to me nothing but a grand scheme of state-aided colonization will serve to relieve the plethora of our overcrowded cities. An intellectual development must be paid for in the lives of future generations, and in our

social existence; and it will not be the descendants of the powerful, the rich, the learned, or the intelligent which will constitute future humanity, but the descendants of the hard working peasant."—*Dr. Frederick W. Mott in Edinburgh Medical Journal, April, 1887.*

LOCALIZED CEREBRAL LESIONS.—In the *Journal of Nervous and Mental Disease* for June, 1887, Dr. E. C. Seguin publishes two cases supporting the theory of localization of motor functions in limited areas, cortical and sub-cortical, of the cerebrum. From the rational symptoms and post-mortem examination, which revealed a localized adhesive meningitis, Dr. Seguin thinks that the first case supports the view that in the human brain the cortical centre for the face is in the caudal end of the second frontal gyrus, where it is continuous with the precentral gyrus, while the second case gives additional proof that the innervating centre for the leg is in the paracentral lobule, and perhaps also in the mesal ends of the pre- and post-central gyri.

DR. FOTHERGILL ON BEEF-TEA.—The lamp of life must be fed; we all realise and recognise that. But surely it is not to be fed by the oxidation of the deadly dangerous descending series of the products of albumen-metamorphosis! And yet that is what we actually manage to do when administering any meat preparation to persons in the grip of pyrexia. Do let us allow our knowledge to guide us when life is trembling in the balance! When the beating of the wings of the Angel of Death is all but perceptible, are we to be murderous instead of merciful? How many of our loved ones have passed over to the majority, and are now roaming the unknown land, lost to those who loved and often depended upon them—from mistaken views (and erroneous action based thereupon) at a critical time? A certain place is said to be paved with good intentions. How many tenants of our graveyards and cemeteries have found their way there through a mistake? The strong beef-tea given by their nurses to strengthen and support them, has been so much poison to many persons gravely ill, adding to the load of waste in the blood, until the system sinks under it—like a fire choked with its own ash. If stimulants must be given, in the name of reason let them not be meat extractives! When one hears the sorrowing friends of a dead man tell of the pounds of best beef which they converted into beef-tea; and the strength, and goodness of the said beef-tea, the smile of derision which would fain break over the features is checked by another thought—a painful saddening conviction that these well-meant services had helped to seal the dying man's fate; that heavy as was the burden under which he was staggering his friends had but added to his load, instead of lightening it for him; that their attentions had deepened the danger, and blotted out his faint chances of survival. * * * * *

Where the typhoid condition is not threatening, and the temperature is not very high, the meat infusions are quite permissible. They are palatable, invigorating, and grateful, as all who have been gravely ill know full well. But they ought to be made the vehicle of soluble carbo-hydrates. Baked flour or biscuit powder lend them a true food value. This matter was practically recognised in pre-scientific times in Mackenzie's "Receipt Book," (1824), in the directions how to make beef-tea the cook is told to put "the meat into water with the undercrust of a penny loaf, and a portion of salt." How, gentlemen, that "undercrust of a penny loaf" has dropped out in the

making of beef-tea I do not know; but thousands have perished of inanition in acute disease from its omission. The sole of a loaf contains a large portion of converted starch (the soluble dextrine), and beef-tea so made was really a sustaining food. Let then the meat infusion contain some converted starch, and the lamp of life is fed. To give a famishing organism, rapidly burning up, beef-tea without the nourishing and sustaining soluble carbo-hydrate reminds me of the passage in the Sermon on the Mount—"What man is there of you whom if his son ask bread will give him a stone?"—*Lecture—Medical Press and Circular, Sept. 7, 1887.*

THE LANCET ON THE CONGRESS.—The success of the Ninth International Medical Congress is a matter for thankfulness. The interruption of the series of Congresses would have been little less than a calamity and a disgrace for the profession in all nations. Any serious imperfection in the meeting, either as respects numbers or the character of the discussions, would have been but little less unfortunate. But the Congress has been held under most honourable auspices; the famous hospitality of the United States has been fully realised; and those who went great distances to attend the Congress have been amply rewarded, and will return to their various countries and duties with higher impressions of their calling and deeper convictions of its progress, both on its scientific and its medical side. We cannot but rejoice that our own country was well represented in many of the Sections; the names of many well-known English physicians and surgeons will have been noticed in the reports which were received by cable from our special correspondents at Washington. We confess that we read the report of the concluding proceeding of the Congress with the most pleasurable emotions, and not least the remarks of the English members. A break-down of the Congress in Washington would have been only a less acute pain to us than a break-down in London. And we accept the concluding speeches of our countrymen and of our *confrères* of Berlin and Paris, Dr. Martin and Dr. Landolt, and others, as proof that the Congress has been worthy of its predecessors, that it contained a larger gathering of foreign members than any of them, and that it is calculated to promote the advancement of our art. Those in the United States who have worked to this end, in spite of much discouragement, well deserve the gratitude which was accorded to them by formal resolution. We have purposely abstained in our allusions to the Congress from pointedly referring to the domestic differences among our brethren in the States, which threatened to seriously mar the success of the Congress, if not to prevent it altogether. Those who persevered in spite of all opposition, and who have carried through the Congress so successfully, may well be satisfied. They have done a great service to their country and to their profession in all countries. It is not necessary for us to say that they committed no faults and made no mistakes. Such praise is not for mortals in a world so full of "spilt saltpetre" as ours. But they have carried through the Congress, and we thank them. There is yet one other service they can do; in any official action that now devolves upon them, to strive to obliterate the last relics of discord, and to hand on the light of truth and charity, undimmed and unqualified, to those in Berlin on whom will now rest the burden of responsibility for the next Congress.—*Lancet, September 24, 1887.*

BOOK REVIEWS.

The Principles and Practice of Operative Surgery. By STEPHEN SMITH, A. M., M. D., Professor of Clinical Surgery in the University of the City of New York; Surgeon to the Bellevue and St. Vincent's Hospitals, New York; Consulting Surgeon to St. Elizabeth's Hospital, to the Foundling Asylum, to the Infant's Asylum; New York State Commissioner in Lunacy, &c. New and thoroughly revised edition. Illustrated with one thousand and five woodcuts. Philadelphia: Lea Brothers & Co., 1887.

A scientific book that greets you on the first page with the announcement that eight issues have been exhausted in less than as many years may be considered pretty well out of the hands of the critic to make or mar its reputation. During this period, as the writer says, a "new surgery" has arisen, with its gradual elimination of effete methods, and the casting away of after-births, so apparently essential at the time, but as science demonstrates, not concomitant with the vigor of its full development.

The author therefore could not have chosen a more fortunate season to revise his former work than the present, when surgery is just on the crest of the wave of advance, beyond the trough of old ideas and not yet fully in the breakers of rash enthusiasm. Indeed, one must be a pessimist if he propose to set bounds to modern surgery, with its simple armamentaria of antiseptics. No cavity except the heart itself may be exempted from not only the prying, but the beneficent scalpel;—auscultation has introduced the trocar—and that again the bistoury, reversing the old order, "first the blade then the ear."

Had the author confined himself to the first section of his work, which he denominates the "Principles," he would have made an appreciable increase in our surgical stock; not that there is much of novelty in it to one reading current professional literature, but rather a sagacious culling of grain from the infinite amount of chaff that abounds in medical journals on both sides of the Atlantic—a formulation and review of a good many axioms men are liable to forget, which, if not put agreeably, share the fate of the "Thirty-nine Articles"—very well in the Common Prayers, but not much read by the Common People.

After studying the new obligations imposed on surgeons by antiseptics, neither the case-hardened practitioner of the city, nor the ignorant or self-reliant countryman can conscientiously continue to follow the old thirteenth commandment, "He that is filthy let him be filthy still," nor congratulate himself when he finds his wounds bathed in what he still calls "laudable" pus, when such simples as corrosive sublimate, iodoform and a nail-brush are abroad in the land. Yet there are some of these so-called surgeons who 'point with pride' to the discussion about the utility of the spray as a revolt in the antiseptic camp. To such the author quotes Cheyne, page 24: "Aseptic surgery is not treatment by spray, nor by gauze, nor by spray and gauze, nor by carbolic acid, but is any method of treatment which aims at and succeeds in excluding the causes of fermentation from wounds." Again, on page 21, he quotes Bileroth: "Failures in the treatment of wounds

at a surgical clinic systematically carried on, become as rare as accidents on a well-managed railroad." A great deal of valuable detail about the selection and amount of antiseptic preparation is given under this head, as well as minute direction in regard to the time, place and conditions of the operations, together with recipes enabling the surgeon to make his own dressings economically, and what in racing parlance might be called 'straight tips' about trifling but perplexing annoyances.

When treating of the Arrest of Hemorrhage we miss the time-honored Spanish windlass, and find the description of the sailor-knot so complicated that a student must have the book with him to tie it, whereas all he has to remember is to pass the *same* end of the ligature over or under the other in tying both divisions of the knot. We must amend a statement on page 88, that each assistant is equally answerable with the operator, by adding only as far as the assistant's province extends. It would be manifestly unfair to blame the anæsthetizer with the opening of the jugular vein provided he had kept up thorough anæsthesia.

The complications of wounds are carefully considered. A serious typographical error has been overlooked however, when on page 113 an intravenous injection of one hundred and twenty grains of chloral is recommended in treating tetanus.

We confess a feeling of disappointment when we finished the description of Fractures, the first topic in the second section.—the Osseous System. Of course it is impossible to give all that monographs contain in a book like the one under consideration, but we think displacing muscles might have been mentioned, and Colles's fracture, from its frequency and complications, demands more than the description of one splint, if the hip joint merited seven methods of amputation. Any one too who has seen the comfort given by an anterior splint in fractures of the thigh will regret its omission under that head.

On page 135, the author says: "In simple fractures [of patella] without complication wiring the fragments gives no better results so far as relates to the usefulness of the limb than the judicious employment of apparatus." Should this fail he recommends wiring. Page 847.

Dislocations are treated in ten pages, in which seventeen cuts appear at the expense of the text, which again contains no description of limiting or opposing muscles and ligaments, if we except the short flexor of the thumb and the ileo-femoral ligament. Had the author pursued the same scientific exactness as he does in the fifty-five pages descriptive of Resection, the value of these chapters would have been enhanced.

Tenotomy and Ligation of Arteries are accurately discussed and anatomical guides in profusion are given. The colored plates of some surgeries are an advantage, as their contrasts obtain a firmer hold on the mind's eye than simply varying shades of black and white. A statement on page 260, "but if *dark* colored blood should flow from the wound which may be expected to come from the lower end of the artery," etc., we did not fully understand. Among the advantages of antiseptic ligatures is mentioned on pages 278, 279, 280, "that where an artery is closed by an aseptic ligature it is not necessary to divide the internal coat, but merely to press its opposing surfaces together temporarily to secure permanent obliteration of its canal."

"By antiseptic operation the artery is strengthened at the seat of ligature

and there can be no danger of hemorrhage. It is stated that the most careful microscopical examinations have shown that catgut increases, to a considerable extent, the resisting capacity of an artery in forming firm connective tissue connections with the vessel."

The bugbear of large openings in arterial sheaths is done away with on page 284: "In ligating vessels in aseptic wounds the vessel sheath can be opened without compromising the integrity of the vessel tunics."

The fifth section of the work is a most valuable one on the Nervous System, in which cerebral topography forms a novel and important chapter, now that the removal of brain tumors may be fairly undertaken by the surgeon.

The author insists on the most careful antiseptics and perfect drainage in brain surgery, which he says is more essential here than in any other wounds.

We can not subscribe however to his rather sweeping dictum (on page 337) in all shot wounds of the brain, no matter how well gravity may tend to drain them, "A counter opening in the skull therefore becomes a necessity." Then follows a most instructive case of W. F. Flhurer, which will repay careful perusal. Leaving the systems the author takes up the individual organs, beginning with the Digestive.

From the mouth to the anus he describes with pen and pencil the operations of the respective parts. When he reaches the abdomen he gives forth no uncertain sound. "There can be no doubt (page 465) that the treatment best adapted to rescue a patient from the perils of purulent peritonitis is section of the abdominal walls and thorough cleansing and disinfection of the peritoneal cavity."

On page 467: "With proper precautions the simple incision of the abdomen has proved to be a very harmless measure."

Again, pages 495-6: "The experience of the past has been that shot injuries of the small intestines are always fatal if treated on conservative principles, but the experience of the present is that some patients may be saved by exploring the abdominal cavity, cleansing it of all effused matter, and closing the wounds of the viscera."

"It can be justly said that the surgeon who allows a patient to die from the effect of a visceral injury of the abdomen, produced by a stab or a bullet wound, without at least a proposition to resort to abdominal section, has failed to discharge the duties imposed by the teachers of modern surgery."

The following direction is given, which is not infallible, as cases reported in Philadelphia *Medical News*, May 29, 1886, page 602, show: "Without allowing the bowels to escape, search for the portion in a state of collapse; if this is found trace it upward, for it is below the obstruction."

In the chapter on Hernia, we miss the differential diagnosis between hernial and other tumors of the neighborhood, but as their descriptions are not details of the operation the author may be justified in omitting them. Quite a number of Indian puzzle operations are given for radical cure, and some of the simpler methods. We failed to see any suggestion about the propriety of effecting radical cure at the time of operating on a strangulated case.

Practical points are given in treating of the Respiratory organs, from the composition of sprays to the latest improvements in intubation. Why the

author says (page 611) "the operator inserts the index finger of the left hand to *elevate* the epiglottis and direct the tube into the larynx," instead of depressing it, we do not comprehend.

An answer to a mooted question, when to do tracheotomy in croup and diphtheria, is given on page 617:

"It is neither to be regarded as a routine procedure nor as a last resort; it is a legitimate therapeutic measure with a definite purpose; the special indications can not be formulated by an inflexible rule; the good judgment of the surgeon must be his guide; the most favorable moment for interference is when the surgeon begins to think that the patient can not live without it, but recovery follows occasionally even when the operation has been postponed until immediately after apparent death."

In the sections on the urinary organs, nephrorrhaphy, nephrotomy, nephrectomy and nephrolithotomy receive due consideration. The author prefers the lumbar incisions, except in cases of large tumors and of all floating kidneys very loosely held by a mesonephron. These he distinguishes from the movable kidney by the latter having no mesonephron, by being acquired and by its limited movements.

He believes further, p. 659, that "There are many evidences that it (litholopaxy) will at no distant period supersede all other operations for the removal of urinary calculus except in a few extraordinary cases."

He gives careful instructions about lithotomy, but omits one of the simplest and best instruments, that of the late Dr. N. R. Smith, against which it has been said the only objection was that with it any one could do a lithotomy.

He says of the suprapubic operation it "has recently been improved in its details," (the rectal bag,) "and is now regarded as the best method of removing very large stones from the bladder." He does not suture this viscus in closing the abdominal wound.

Under the head of ovariotomy the mistake appears p. 721, "begin the incision midway between the umbilicus and the pubes, and cut downward through the skin and subcutaneous fat at one cut about twelve and a half inches." He does not mention the searcher before opening the cyst, and adds, p. 723, when the contents are glairy and will not evacuate through a trocar, "the only course is to enlarge the incision to the extent of four or five inches or even more."

Timely chapters on amputation, orthopædia, ankylosis and compensative appliances complete the work.

The figures, which number a thousand and four (figures 87 and 149 being identical) are for the most part clear and conduce greatly to the value of the text. The cuts in plastic operations are especially graphic and practical.

The statistics, when given, are put in a digestible form, but it is to be regretted that in quoting authorities the reference is not given with the name of the author. Taken as a whole this is a very valuable work, and Dr. Smith has reason to congratulate himself on producing a book which no surgeon who wishes to keep abreast of the times can afford to be without. Indeed, one may find careful directions for all operative procedures from the apparently trivial hypodermic injection and vaccination to advice about the "times that try men's souls" of laryngectomy or hysterectomy.

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Baltimore, Md.

Insanity, Its Classification, Diagnosis and Treatment. A Manual for Students and Practitioners of Medicine. By E. C. SPITZKA, M. D., President of the New York, Neurological Society; formerly Physician to the Department of Nervous Diseases of the Metropolitan Throat Hospital; consulting Neurologist of the North Eastern Dispensary; Neurologist of the German Poliklinik. W. & S. Tuke Prize Essayist, etc. Second Edition. New York: E. B. Treat.

The appearance of a second edition of a work on insanity within four years of the original publication is naturally gratifying to the author, and it indicates an amount of interest in the subject on the part of the profession at large which is matter for congratulation for all who have the interests of the insane at heart. It is unfortunately the case that the average general practitioner learns but little in regard to insanity before graduation, and does little to supply the deficiency afterward. The subject, in its professional bearings, is almost entirely ignored in the medical journals which he reads, and receives but scanty attention in most works on practice. Under such circumstances it is not strange that his ideas in regard to the diagnosis, prognosis and treatment of insanity should be of the haziest character, and that his unfortunate patients should suffer from neglect or mismanagement at the stage of their disease when most can be accomplished by judicious treatment. It is very much to be desired that every physician might possess and carefully study some good work upon insanity, and for that purpose there is perhaps none in the English language so suitable as the subject of this notice. The price is moderate; the classification adopted is perhaps as satisfactory as any in the present state of our knowledge; the salient points in the various forms of insanity are well brought out in the descriptions, and the recommendations in regard to treatment are judicious. To the specialist it is principally interesting as an able exposition of the views of the German school of alienists. The limits of the work preclude any great fulness of treatment.

The present edition is essentially a reprint of the first. The term "paranoia" has been substituted for "monomania," and the asperity of some of the foot-notes in the first edition has been toned down. Eight pages of notes have been added in the form of an appendix, but they contain no matter of special importance. The only new remedy to which reference is made is paraldehyde, with which the author's experience has not been encouraging. The author seems to make a singular mistake in his criticism of Tuke's classification (page 404), assuming that *mania a potu* is identical with dipsomania. It is the acute alcoholic delirium of the Scandinavian classification on the same page.

The profession will look with interest for the larger work which was promised at the time the first edition was issued, and to which reference is again made in the preface to this edition. The author's extensive acquaintance with the literature of the subject and his independent investigations are important qualifications for the work. The fact that his experience has been mostly obtained in private practice has its advantages and its drawbacks; those asylum physicians who think they could do better can doubtless have the opportunity. Some of the alterations above mentioned give reason to hope that the intolerance of conflicting opinion, which is rather an unpleasantly conspicuous feature of this work, may be less prominent hereafter.

Preliminary Report of the Commission appointed by the University of Pennsylvania to Investigate Modern Spiritualism, in accordance with the request of the late Henry Leybert. Philadelphia: J. B. Lippincott Company. pp. 157. 1887.

This is the full title of a very interesting and instructive volume. It gives a clear and full account of the first serious attempt as yet made to subject the claims of "mediums," and other workers in the craft which is called by them "Spiritualism," to a careful and thorough examination. The history of the origination of the Commission is rather curious, and will attract the attention, we doubt not, of scientific inquirers. It appears that "the late Mr. Henry Leybert was during his lifetime an enthusiastic believer in modern spiritualism, and shortly before his death presented to the University of Pennsylvania a sum of money sufficient to found a chair of philosophy, and to the gift added a condition that the University should appoint a commission to investigate all systems of morals, religion, or philosophy, which assume to represent the truth, and particularly of modern spiritualism." A Commission accordingly was appointed, consisting, when completed, of ten gentlemen of the highest character for ability, soundness of judgment, and freedom from prejudice. The present report of their labors is preliminary, the Commission not having proceeded to the extent which they wish in this investigation, and having met with unexpected difficulties and hindrances from the very people who profess to desire investigation of their claims.

The report is drawn with great care and manifests entire willingness on the part of the Commission to accord to so-called "Spiritualism" all the favor that can rightly and properly be given to it. But it is plain enough from what is stated, that the whole system is a fraud, and that the mediums palm off on credulous people only such tricks of sleight-of-hand and the like as any skilful juggler can and does perform better than the mediums themselves. The formal report occupies twenty-five pages. The balance of the volume is more important as it contains the records by different members at different times of experiences in slate-writing, untying knots, bringing up spirits from the vasty deep, and "materialization of spirits," by means of which any body can have any spirit he wants, ready to order, and ready also to assume any character the party may wish.

The painful part of the story is that on which Mr. Furness, Mr. Fullerton, and others touch gently and feelingly. It is humiliating, as Mr. Furness says, "that honest, unsuspicious, gentlemen and gentlewomen are daily deceived" by these pretended materializings of spirits of the dead. Daily, as another gentleman notes there is presented "the melancholy spectacle of gross fraud, perpetrated upon an uncritical portion of the community." And the Commission, as a body, deplore that "by such elementary tricks of legerdemain as these (slate-writing, &c.) are guileless, honest folk deceived." One can hardly find language strong enough to denounce the cruelty and outrage which are the result of these performances, especially in the cases of women and others who are in deep affliction, and who, craving any possible consolation, are all too ready to accept anything which assumes the power of bringing the spirits of departed loved ones back again to earth. Such charlatans ought to be suppressed by the strong arm of the law, as receivers of money under false pretences. This is perhaps too much to expect or look for at present; but certainly something of the kind ought to be done in order to rid the community of these noxious practices.

FOREIGN CORRESPONDENCE.

THE CARE OF THE INSANE IN IRELAND.—The data which serve as the basis for this paper are derived from personal observations in six Irish District Asylums located at Cork, Dublin, Sligo, Londonderry, Letterkenny and Belfast respectively. I presume that these may be taken as representative of the institutions in the general divisions in which they are located. They comprise four of the principal divisions of the island, viz.: Leinster, Munster, Connaught and Ulster. As the characteristics of the inhabitants of these different sections vary greatly it might naturally be assumed that the institutions would reflect this variation. This is indeed quite noticeable as far as the general appearance of the inmates is concerned, those in the Ulster district differing decidedly from those in Leinster, but in methods of management and architectural provision this variation is not observed. There, as here, these features depend largely on the individual characteristics of the heads of the institutions, and as these are chosen by authorities not influenced by local peculiarities, these have but little effect upon them.

The entire grounds belonging to each asylum are surrounded by a stone wall usually from twelve to fifteen feet high, and a gate-keeper and lodge are constant accompaniments. It is necessary to ring a bell at the gate, and no one is permitted to go either in or out without stating his business or making known his identity. At one institution, unfortunately for me, the superintendent was absent for several days, and had left orders with his gate-keeper that under no circumstances whatever was any one not connected with the institution to be permitted to enter the grounds, and by no artifice or persuasive words could I induce the faithful sentinel to vary from the ferric rigidity of his order. He said it would be as much as his place was worth to do so, and as I had no personal animosity toward him I forbore my urging. I could but reflect, however, upon the situation and failed to convince myself that the social conditions are such, even in Ireland, as to necessitate such a strange and, to me, inconvenient order. I fear that the objection to all inquiry which it seemed to indicate, bodes no good to the management.

With this exception I was received with the utmost courtesy and given every opportunity to gain all the information desired.

In reviewing the institutions of any country it is necessary to

consider them in relation to the customs and social status of the inhabitants, and particularly is this true of Ireland where the conditions prevalent are largely peculiar to that island. Notwithstanding the knowledge of this fact it is impossible for an American to be unaffected by the barrenness and cheerlessness of the Irish asylums.

The situation of those I saw is as favorable and pleasant as could be expected or desired. The grounds are naturally limited, from sixty to eighty acres being the usual size. Nearly all of this is devoted to farm and garden purposes and but little to floral display. At one or two, however, the approach was quite tastefully ornamented with walks and flower beds.

The general plan of architecture is either that usual with us of corridor, single rooms, day-room, and dormitory, on some modification of the Kirkbride three-story linear plan, or the block plan of large day-rooms and dormitories with but few single rooms, the latter being more prevalent in the more modern institutions.

General dining-rooms are usual, though the extent to which they are used varies greatly. There were never more than four-fifths of the whole number of patients dined in them, and the proportion was usually much below this. The suicidal, some of the epileptics, the more excited class and the infirm had separate dining-rooms. The working class also had sometimes a separate provision.

General bath-rooms were also customary and a bath in addition in wards devoted to special classes. At one institution the ordinary plunge bath was never used, the hot air bath and the shower bath being the only forms allowed. These were thought to be safer and more efficient. Fairly comfortable and commodious provisions were made for the hot air bath, three rooms being devoted to the bathing and dressing, and benches provided for the use of patients during the "cooling off" process.

The windows had usually no extra guards, but the panes are placed in iron sash, and ventilation is secured by a slight tilting of the upper sash or by a small wicket in the centre of the window which opens on a hinge. In one or two institutions there were neither iron sash nor guards in a part of the wards, the wooden sash opening but four or five inches, and the glass of extra strength. The moderate summer temperature in Ireland renders a further opening of the windows unnecessary.

The method of heating is almost universally by open fires, the grates being protected by heavy guards placed about three feet

from the fire. In only one institution did I notice any other method of heating—this was in the refractory ward, and was by hot water pipes placed around the top of the rooms. There are no ventilating flues and no provision for ventilation beyond the fire-places and the windows.

The absence of chairs of any kind in the wards and day-rooms, the absence of carpeting for even the most convalescent patients, the scarcity of pictures on the walls and the total neglect of wall decoration combine to increase the unfavorable impressions made by the plainness of the architecture. The general dining-rooms were especially plain and meagrely furnished. The tables were certainly not more than two feet wide with a bench on either side for seats, no cover of any kind and no table furniture but a mug or tin cup and a spoon. I was present at two or three meals, and the fare consisted of a single dish of a semi-liquid beef stew or potato stew eaten from the aforesaid cup or mug with the large spoon. A cube of bread about two inches in dimensions was also furnished each patient. This was the dinner meal and there was no drink of any kind accompanying it.

The walls of the single rooms were usually unplastered and sometimes this was true of the day-rooms and corridors. The bare bricks looked cheerless indeed. With it all, however, the patients looked healthy, as a rule, and well nourished. In one institution defective drainages had engendered a number of cases of dysentery and diarrhœa, but in all others the health of the patients seemed up to the average among the insane.

The clothing of the inmates was heavier than is used in America, but quite plain.

The patients seemed contented and ordinarily cheerful, and I was told that this diet and these surroundings are far better than those of the peasantry from whom the patients chiefly come. The chief article of diet is potatoes, meat being furnished not oftener than two or three times a week, but though thus limited in variety, it is abundant in quantity and well cooked.

The proportion of attendants to patients varies from one to fourteen or fifteen, when all heads of outside departments are included to one to thirty where day attendants in wards are alone considered.

The medical staff is exceedingly limited. At the Richmond Asylum, with 1,125 patients, there are but two assistants, and institutions with four to six hundred patients have but one assistant. At Letterkenny, with about 400 patients, there was

none, the medical superintendent being the only physician in the institution. There is usually a consulting physician in addition who lives outside of the institution, and is only called in as occasion requires.

Personal liberty is seldom granted to patients. I find on referring to my notes that the number who are given the privilege of parole in any institution that I visited does not exceed six or eight, and even these are not permitted beyond the enclosure of the grounds unattended. Outdoor exercise under attendants, however, is given largely, and with but few exceptions every patient who is physically able is outside for several hours daily.

Airing-courts are in use at nearly every institution, and I regret to say that they were sometimes quite inadequate and sad-looking affairs. One superintendent had covered the whole area of the court with coal cinders, and thought it a decided advantage, but the grimy appearance of the patients indicated that there was still room for improvement. The old sight of patients squatting about on the ground, and in untidy condition, confirmed still more the impression that such enclosures require caution in their use to prevent evil.

The employment of patients, while general and ordinarily extensive, presented nothing of special interest. The various departments of the institution and the cultivation of the farm and garden were the means used to give occupation. Their mild winters permit outdoor work during the greater portion of the year. I was told here as elsewhere that but little could be accomplished in teaching the insane occupations in which they had not been trained when sane. In one or two institutions the shoes and all of the clothing were made in the institution, partly by the labor of patients and partly by hired labor.

The night service was ordinarily good. There was always special service for the suicidal and usually for the worst epileptics. At two institutions there was a peculiarity in arrangement that surprised me considerably. I refer to the prejudice against single rooms. At the Richmond asylum, with 1,125 patients, there were but twenty single rooms in use as such. The older portions of the building had quite a number of rooms but the doors were either removed, or, as I was assured, were never closed at night. At Sligo, with 400 patients, the number of single rooms locked at night was but thirteen. I was assured also that patients preferred the large dormitories, and that the noise and disturbance at night in these was not sufficient to prove annoying. The single

room at these places is evidently looked upon with much disfavor, indeed in one instance it was said to be a "relic of barbarism" in the methods of caring for the insane, all of which, from an American standpoint, seemed unique at least. The force of night attendants is not unusually large and many of the large dormitories, with sixty or eighty beds in them, are left with no regular watch in them. This certainly indicates a very commendable control over the nocturnal habits of their patients.

Hypnotics are but seldom employed, never, I believe, in larger proportion than one per cent, and hyoseyamine or hyoscine rarely, in some institutions not at all. Paraldehyde and chloral seemed the favorites.

There is but little attempted in any of the Irish asylums in pathological work, the administrative duties of the superintendent occupying his time, and the small medical staff preventing much work on their part. Autopsies are infrequent, sometimes but two or three during a year, even in institutions of larger size. The officials say that the religious prejudice of the friends interferes.

A striking fact is the great infrequency of general paralysis among the Irish. At Richmond, among 1,125 patients, there were not more than four or five general paralytics. In other institutions with 500 or 600 patients, there would not be more than one or two paretics, and I am convinced that this is not due to different views as to classification. The general paralytics whom I was shown did not possess the symptoms of the disease in any unusual degree, nor differ in any respect from the general paralytic in American institutions.

The proportion of recoveries in the six institutions that I visited for the year 1886, based upon the total admissions was 41.93 per cent. At one institution the surprising results are shown of a recovery rate among males of 54.39 per cent, and among females of 84.38 per cent of the total admissions. I would respectfully suggest to our distinguished countryman, Dr. Earle, that these results vie in importance with those attained a few years ago at the asylum for colored insane in Virginia, and would appear to demonstrate that if one has a neurotic parentage and can not elect to be born colored and within Virginia lines, he should as the next alternative strive to have his lot cast in old Connaught and select the "female persuasion."

The average percentage of deaths for the year 1886 in the six institutions, based on the average number resident, was 10.12 per cent.

As to seclusion and the use of restraining apparatus, I found but little to attract notice. The amount of either is small. In some the amount of seclusion would aggregate about one per cent. In others it was less. Some used no restraining apparatus except in surgical cases, others made occasional use of it for other purposes. In one institution I found two patients who had their arms confined in the sleeves of an ordinary coat sewed up at the ends and stitched fast to the sides of the body of the coat. This was done, I believe, to prevent picking.

The amusements for patients were of the ordinary kinds—dances and musical entertainments weekly, being the chief. Considerable attention is paid to the religious training of the patients. A chapel for the Church of Ireland and another for the Roman Catholics are found in connection with each institution, and in the north there is added still another for the Presbyterians, patients being sent to one or the other as their religious belief is given on admission.

In traveling through Ireland I was impressed with the absolute ignorance of even the more intelligent portion of the people regarding the nature and conduct of their asylums for insane. This ignorance unfortunately exists everywhere to too great an extent, but it seemed to me to be even more astonishing here than is usual. This is probably due to the exceedingly rigid surveillance over the admission of the public and the many difficulties thrown in the way. It has always been my view that the best protection such institutions can have against misrepresentations and false accusations lies in the enlightenment of the general public as far as practicable upon the subject of our methods of treatment and of the chief traits of the insane character.

The salaries of the medical superintendents of the six institutions varied from \$2,875 to \$3,875 per annum, including all allowances. The salaries of assistant medical officers varied from \$965 to \$1,250 per annum, also including allowances. Male attendants receive from \$85 to \$170 per annum in addition to furnished apartments, board and washing. Female attendants receive from \$40 to \$110 per annum, in addition to the same that is furnished male attendants.

A. B. RICHARDSON.

EDITORIAL NOTES AND COMMENTS.

NINTH INTERNATIONAL MEDICAL CONGRESS.—To American alienists the success of the Section in Psychological Medicine and Nervous Disease has been a source of unalloyed satisfaction. At one time the fear was entertained that the death of Dr. Gray would sadly derange the arrangements which had been made for the work of the Section. The result however of the zeal and efforts of his successor, Dr. Andrews, demonstrated that his mantle had fallen upon worthy shoulders. Too great praise also can not be given to the efficiency and thoughtfulness of Dr. Ferguson who had acted as Secretary from the organization of the Section. The *personnel* of the Section comprised such names as Aplin, Blandford, Bower, Campbell Clark, Davies, Langdon Down, Mickle, Savage, Yellowlees and others from Great Britain; Girstrom, Homen, Mendel, Otto and others from the Continent; Daniel Clark and Duquet from Canada; Andrews, Bryce, Brower, Brush, Channing, Chapin, Fisher, Godding, Gundry, Hughes, Hurd, C. F. MacDonald, Nichols, Spitzka, Wardner and other representative alienists and neurologists from America. The numbers in daily attendance were large—so large in fact as to seriously tax the limited accommodations provided by the Executive Committee—and the interest in the work of the Section continued unabated until its conclusion. The papers presented as a rule were of a high order of excellence; the programme was well arranged; and the discussions were interesting and profitable. The address of the President of the Section was judicious and dignified and admirably calculated to furnish representatives of other countries some idea of what had been attempted and accomplished towards the care of the insane in the United States. The peculiarities, excellences and defects of American institutions for the insane were plainly and impartially set forth. The reading of the address must give to strangers a better conception of the condition and character of our institutions and a clearer understanding of the difficulties and burdens under which American alienists labor.

The paper of D. Hack Tuke which followed it was largely in the same line of thought and evidently dictated by the author's personal observations while in America. It did full justice to the efforts which are making in this country to solve the problem of the care of the chronic insane and if it had any fault it was in

conceding too much praise. The concluding portion of the paper for example, on the practical identity of opinion and practice in America and England as regards the use of mechanical restraint seemed to inadequately represent the real difference between the two countries. As we understand it, the principle of non-restraint is so thoroughly established in England there is little danger that restraint will ever again be generally resorted to or abused if at any time its employment should be deemed advisable in individual cases. Hence there is no danger to any vital interest there, in criticising and belittling Conollyism so-called. In America on the other hand non-restraint as a principle of asylum government has not yet been generally adopted and the amount of restraint employed, although constantly diminishing, is still considerable. Some alienists indeed do not accept the doctrine of non-restraint and not only practice but defend the liberal use of mechanical restraint. With others, non-restraint means modified restraint. The practical identity of practice in England and America is confined to some of the most progressive asylums of the latter country. It is to be feared, if the impression prevails that non-restraint in England is identical with the modified restraint in America the effect will be to delay the beneficent reform and furnish weapons for its opponents.

The papers of Spitzka of New York, Mendel of Berlin, Homen, of Helsingfors, Otto of Munich, and Bishop of Chicago were of extreme interest and demonstrated that neurological topics had not been lost sight of in the arrangement of the work of the Section.

The greater portion of two afternoons was given to discussions upon the relations of syphilis to the various forms of insanity. These discussions were conducted in a masterly manner by Savage of London and were regarded by many the crowning excellence of the sessions. The remarks of Mendel, Down, Mickle, Spitzka, Yellowlees, Savage, Godding, Hurd, Fisher, Brush, Hughes and others upon the various branches of the subject were a rich treat to all who were present. The paper of Mendel of Berlin upon "Moral Insanity," possessed a peculiar interest because it voiced the sentiments of many American alienists who believed that moral perversions do not exist *de novo*, but are invariably the sequence or accompaniment of mental disease, impairment or defect. Space will not permit any extended mention of many of the papers presented. Mention however should be made of the papers of Langdon Down on the "Prow-Shaped Cranium," of Fisher on "Monomania,"

of Bower on "Occupation for the Insane," of Channing on the "International Classification" and of Godding on "Insanity as a Defence for Crime," which were much commended.

The informal banquet given at Wormley's by the American to the foreign members of the Section on Thursday evening, deserves special mention. The *menu* was excellent, the speeches by Yellowees, Down, Mendel, Savage, Homen, Godding, Gundry, Spitzka, and others were witty, appreciative and full of kindly feeling and the whole evening a decided success. All members of the Section were placed under great obligations on this festive occasion to a most efficient and public spirited Committee of Arrangements. Not the least of the many benefits derived from the meeting of the Congress was the opportunity thus afforded to meet in person those whose reputations had extended across the Atlantic and to form those enduring friendships which result from identity of interest, common pursuits and devotion to the same philanthropic ends. To the foreign members of the Section who contributed so unselfishly to their instruction and profit the grateful acknowledgments of American alienists and neurologists are forever due.

THE NEW YORK CITY ASYLUMS.—The Report of the Standing Committee on the Insane of the New York State Board of Charities, dated August 12, 1887, as the result of an investigation, with which they were specially charged, of the management and affairs of the New York City Asylum on Ward's Island, spreads out into a general discussion of the whole system of insane care and provision heretofore pursued by the municipalities of New York. The investigation was suggested by the mayor of New York in a letter to the Board, and this Report expresses "the hope that the end of the investigation suggested by the mayor, viz.: 'the reformation of abuses and the improvement of the management of this great charity' may be attained, not so much in specific findings of facts relating to particular cases, as in conclusions regarding the general causes and conditions which necessarily have given rise to actual evils and abuses in this asylum."

The first among these "general causes," we should say is a very distinct and "specific finding," and that is a great overcrowding of the institution. A building intended for 1,000 patients has 1,326, while other buildings leased for the accommodation of the balance of 1,916 patients in all, the committee say "should be condemned as uninhabitable." All this carries with it an inevita-

ble sequence of evils, inadequate care, low grade of dietary, unqualified and ever changing attendants. There must be no overcrowding, there must be room and verge enough for air, exercise and employment, and above all, there must be intelligent, self-respecting and conscientious attendants, not usually to be found in the class of "bar-tenders" and "tramps." It is a marvel that any superintendent in such circumstances as these, and handicapped with such a city administration, which piles up its accumulations of insanity here, without any of those outlets of relief enjoyed by all the State institutions, should have made so good a record of care and treatment as have the officers of the New York City Asylums.

The Committee find that attempts have been made for years to provide a farm on Long Island for the relief of this increasing distress, but that all the movements have been delayed to the point of hopelessness by the red-tapism of the several Boards through which every financial measure has to pass. No member of the "Board of Estimate and Apportionment," upon which the matter chiefly depends, appeared before the Committee; but the Committee significantly hint in the conclusion of their Report that in case something is not done soon, it may become the duty of the State Board to memorialize the Legislature. It is really an outrage to consign the fresh cases of acute insanity that are constantly arriving to this overcrowded receptacle and accumulation of many past years.

The Committee state distinctly that the superintendents and medical officers are in no degree responsible for the evils of the present condition of the Insane Asylum on Ward's Island, but on the contrary, under these unfavorable circumstances, have made great reforms and improvements. It is earnestly to be hoped, that the municipal administration may be made more prompt and effective, as a result of this investigation, and that an outlet for at least the chronic cases may be speedily provided on Long Island or in Westchester county.

STATE CARE *vs.* COUNTY CARE.—We have received a circular letter from the Pennsylvania State Committee on Lunacy, issued for the purpose of enlightening public opinion on the great question of keeping pace with the increase of population and of the dependent classes with a measure and quality of care and treatment equal at least to that upon which existing State hospitals were established. Pennsylvania has at present well conducted

institutions for the insane at Harrisburg, Danville, Warren, Norristown and Dixmont, which if supplemented by a new one near Scranton, and another in the southeastern part of the State, would amply provide not only for the indigent, which class now has the precedence of all others, but also for the middle and self-supporting classes for many years to come. But as in the State of New York, there is considerable disposition to press county provision, though of an improved character, for the pauper and chronic class. To this there are many objections. The number cared for in each county is usually too small to admit of the classification required by scientific treatment, and for anything like decent provision the per capita cost would be raised above that of State care. Under these circumstances the inevitable and constant tendency would be to degeneracy in the quality of care and treatment. As it is, almshouses have succeeded only in caring properly for those whose insanity is so slight that they may safely be dealt with as sane, and who can be well employed in daily labor. The homicidal, suicidal, and maniacal require more oversight than county provision, even in its best examples as yet, can secure. In our opinion, the colony system, proposed to be added to the State institutions, is the only thing with which to meet this cry for county and municipal asylums.

But the committee use an argument which will be more potent with legislators, when they say:

A county or municipality may wisely take charge of its own insane, when the number of this unfortunate class is sufficiently large to warrant an appropriately built hospital, provided with all medical supervision, trained attendants, and with all the appliances for abundant employment, recreation and amusement. When this is the case, however, it will be found that the cost to the county or municipality will be much more than is now paid to the State by the counties for the maintenance of their insane. With this fact in view, we apprehend the principal inducement for keeping the insane in the counties will disappear, for the desire is general to reduce the cost of maintenance to that of ordinary paupers.

As bearing upon this point, we may quote from the *Buffalo Express* of September 20th. Mr. Letchworth, President of the State Board of Charities, having recently returned from an inspection with the Secretary, Dr. Hoyt, of the poorhouses in the Eighth Judicial District, was asked whether any cases of special interest had come under their notice, and replied:

Yes; there is an insane young woman in the Genesee County Poorhouse that has strongly enlisted my sympathies. She was formerly a school-teacher in Brooklyn, and though now but a wreck, she still bears the trace of culture

and womanly graces. At the time of our visit we found her confined in a little room or cell, having a grated window and solid double door with a small square opening covered by an iron grating, through which she could be seen. She was in a high state of excitement, loudly vociferating, and stamping the floor, and pounding the door in a fearful manner, and was in a condition most pitiable to behold. She, with a few other patients, was in a cobble-stone building that years since was condemned by the State Board of Charities as unfit for the habitation of the insane. She has some property left her by relatives who supplement the income from this from their own funds and pay \$2.50 per week to the county for her maintenance. Our board has not felt authorized to direct her removal to the State Asylum, its power in this respect extending only to the pauper insane. Through its officers, however, it has made repeated protests against her retention here which have been supplemented by my earnest personal entreaties for her removal to State care. At the Willard Asylum, at a charge of \$2 30 per week, 20 cents per week less than her friends are now paying, she would have the special supervision, care, and treatment which this class require, and which can not be extended in a county poorhouse. This interesting person, although having some private means, has never had the benefit of State hospital treatment under which it is not improbable she might have recovered her reason. It is my opinion that in the case of this poor creature a great wrong has been committed, but upon whom the responsibility for it rests I will not attempt to say. It is a wrong, however, now included in the long catalogue of those that can never be rectified by any human court.

CONGRESS ON INEBRIETY.—At the Colonial and International Congress on Inebriety, held in London July 6 and 7, 1887, a public reception was tendered with suitable resolutions, to Dr. T. D. Crothers, of Hartford, Conn., Secretary of the American Association for the Cure of Inebriates, and editor of the *Quarterly Journal of Inebriety*, by Dr. Norman Kerr, President, and other officers of the English Association.

Dr. Crothers read a paper giving a history of the movement, which originated in the United States, citing Dr. Benjamin Rush as the first to state that "Intemperance is a disease," requiring hospitals for its exclusive treatment. He described the first experiment in this direction as undertaken in 1846, by Dr. J. E. Turner, in the fine building erected for the purpose at Binghamton; although after a somewhat unfortunate history, that edifice has since been converted into a State Asylum for the Chronic Insane. Dr. Crothers says that since that time over fifty such hospitals have been established in America, of which more than thirty are still in successful operation, the rest having been turned at last into "insane asylums," or "water cures," "faith cures," lodging houses, &c. Some places have been devoted to victims of

the morphine habit. The Doctor has observed that these institutions have so far been made available chiefly to the self-supporting classes of society, rather than to the pauper, the laboring or the criminal classes. The legislation giving control over inebriates is as yet very imperfect, although statutes against drunkenness impose the penalties of fines and imprisonment. The addresses on the occasion throw little light on the scientific side of the subject of inebriety. The "meeting-place of vice and disease" must of course be a perplexing element in any scientific discussion, which can hardly be disposed of by summary exaggeration in either the moral or physical direction. The subject however, has a most legitimate relation to the question of the causation of insanity.

THE CASE OF THE BUFFALO ASYLUM ATTENDANTS.—It is gratifying to learn that after a thorough investigation, before an impartial judge and an intelligent jury, the latter, without leaving their seats, found "no cause for action" against certain attendants who had been accused of maltreating a patient in the Buffalo asylum. It will be remembered that a maniacal patient died suddenly under apparently suspicious circumstances a few months ago. Greatly to the credit of the trustees and superintendent the fullest investigation was insisted upon by them, and no attempt was made to champion the cause of the attendants who had been charged with the alleged act of cruelty. Some local newspapers, however, with keen scent for an "item," could not await the result of judicial action. Double-leads were called into requisition, and a wanton attempt was made to prejudice public opinion against the management, with the inevitable result of inflicting exquisite mental pain on those who had consigned their friends to the asylum for custody and treatment. Men and women with perceptions distorted by disease were eagerly sought out and induced to pour into willing ears their tales of imaginary woe. One of the State's noblest charities and best equipped hospitals was stigmatized as a "madhouse" while trained attendants were "brutal keepers."

The climax was capped in sensational journalism when a vile pictorial newspaper in New York seized the occasion to bring out once more an old wood-cut and by slightly changing the legend to flout in the face of men, decent as well as depraved, what purported to be an attempted outrage on a female patient. All this before the conclusion of the judicial enquiry that the authorities had done everything to promote.

We are not of those who believe that harsh treatment never occurs in hospitals for the insane. We do not need to be reminded that at the Utica asylum charges of cruelty have been substantiated against attendants. But we do believe that in well-conducted institutions such occurrences are extremely rare, and we know, moreover, that incompetent or cruel employ  s are summarily dismissed by those whose interest it surely is—to say nothing of the humane side of the question—to maintain the efficiency of the service. Perhaps the only persons who are immediately interested in medical mismanagement are certain venal newspapers that seek their own interests, first last and all the time, by publishing that which will cause a scandal, and causing a scandal will promote for the nonce their daily circulation.

We are pleased to note the dignified and generous position taken by the leading organs of opinion in Buffalo throughout the enquiry.

We congratulate the trustees, superintendent and attendants on the jury's verdict, and commend their conduct pending this gratifying result.

THE FOURTEENTH ANNUAL REPORT of the State Charities Aid Association to the State Board of Charities for 1886, is very useful for many purposes, and among others, for showing how little county provision can generally be relied upon for the proper care of the insane, when there are so many deficiencies and abuses in the proper support of insane paupers. It says "the county care of the insane has always been condemned by the State Board of Charities, by the Commissioner in Lunacy and by this Association." Even where the filthy or violent and uncontrollable patients are removed to State institutions, for those of a more quiet character, one attendant to every twenty patients is hardly sufficient, but we fancy very few almshouses have come up to that in their insane departments.

The reports of visiting committees of this Association in various counties are very interesting, and let in considerable light on obscure places. Of course the idea has penetrated the minds of officials that a clean and tidy place goes for a good deal, and so we shall need find that the rule in the great majority of these institutions. But it does not cover all the multitude of other sins or abuses. We should be sorry to say, *ex uno disce omnes*: but to take the case of one county, will be enough to show what Boards of Supervisors may be capable of anywhere.

Schoharie county poorhouse has between forty and fifty inmates.

The keeper is paid a small salary; his wife is not paid, and only \$100 is allowed for other help in the house and for the keeper's family. The farm is sixty-two acres, with five cows; no produce sold; the "dining-room is a dirty, damp and ill-smelling cellar;" three meals a day in summer, only two in winter: water supply from a spring, in pipes decayed or "stopped up," or from wells, when not dry, in which case, brought in barrels from the creek; *one* movable bath-tub, "which they can use when they want to," the odor indicating that "they" do not often "want to." No paid attendants; no light but candles, and only till 9 P. M.; a "winter increase" of tramps and hop pickers; "men sleep down stairs and the women above;" no night supervision of inmates; stairs open and dormitories all "unlocked." "The first object seen in the house by the secretary was a weak-minded woman in charge of her weakly infant, born in the poorhouse last Christmas," and not her first experience of the kind there.

We suppose this is quite enough. The Association is doing a good work in ferreting out facts like these, and bringing county authorities to a "realizing sense" of what the civilization of this age and country demands.

TWENTIETH ANNUAL REPORT OF THE NEW YORK STATE BOARD OF CHARITIES TO THE LEGISLATURE OF 1887.—The total valuation of the property devoted to charitable purposes in this State is \$52,138,192.45, of which \$34,453,447 is held by incorporated benevolent associations.

The daily average number of paupers, insane and otherwise infirm and dependent persons, in the various charitable, reformatory and other institutions of this State, its counties and cities, during the past year was about 63,000, and the approximate monthly expenditure for their maintenance was about \$1,000,000. The Board lays down this very good rule, to guard against the criminal pauper element, which shirks all burdens, and is disposed to throw its own support upon the public. "It should be the aim of all officials charged with the disbursement of charitable funds, to base this relief on the actual needs of the dependent, and so adjust its administration by proper safeguards as to restore them to self-supporting positions, and to ward off the idle, shiftless and designing classes."

The number of insane in the State, in all classes of institutions, October 1, 1886, was 13,538, being an increase of 831, for the year. In the four State hospitals for acute insane were 1,808 patients,

and in the two asylums for the chronic insane 2,754, leaving the rest in county or city care. In the asylums of the counties exempt from the Willard Act are 1,620 patients: in those not exempt only 524: in private asylums 638: in city asylums or municipal almshouses 6,016. Of the whole, there are 1,188 more women than men.

Under the law of 1880 the Board has spent \$13,641.90 in returning 623 emigrants becoming a public charge to the countries from which they came, all in some way disabled and helpless.

The report is a condensed and business-like document.

THE CLASSIFICATION OF THE INSANE.—Dr. Ralph L. Parsons, of Greenmont-on-the-Hudson, N. Y., has recently contributed an essay to the growing literature on this subject. He aims to clear up the knotty problem by formulating a system of classification based on symptomatology, simple in arrangement, but so comprehensive as to include all types and varieties of insanity that have been differentiated and allow room for any new varieties that may be differentiated in future.

The entire range of psychic disturbance he reduces to four primary forms, viz.: oligomania, mania, melancholia and dementia, and under them arranges all recognized varieties of insanity. Oligomania is used to express a form of insanity "which, although potentially affecting all the mental faculties and operations, apparently invades only a part, as the emotions, the intellect or the will." The adjective lisomeric is used to characterize a form of insanity caused by abstinence from food. The terms paresis and epilepsy are discarded, the corresponding adjectives being used in their stead, as paretic dementia, epileptic mania, etc. It seems almost hopeless to look for anything like unanimity of opinion on this vexed question. Dr. Parson's "oligomania" has at least this to commend it: it would not be likely to pass readily into common speech and perpetuate in the lay mind the sometimes dangerous heresy of "monomania" as vulgarly understood.

CORRECTION.—An unfortunate typographical error occurred in the April number of the JOURNAL. The article on Psycho-Therapeutics was by Dr. J. Leslie Foley, not *Tobey* as printed.

OBITUARY.

DOROTHEA L. DIX.

As the Memoirs of Miss Dix promised for our pages will not be ready until a later number, we must content ourselves for the present with a few words in the way of an obituary notice, though we are aware that no formal paper, even by the worthiest hands, whether long or short, can do justice to the life record of this noble and venerated woman.

Miss Dorothea Lynde Dix was born at Worcester, Mass., in the early years of this century, or the closing years of the last, many believing her to have been over ninety years of age at the time of her death, which occurred at Trenton, on the 18th of June last. Her home had been for five years at the Insane Hospital in that city, which she had been instrumental in founding, a privilege accorded to her by the Legislature of the State, in recognition of her unequalled services and labors in behalf of the insane both in this country and in Europe.

It was just after Pinel had in his great work lifted the subject of insanity from a question of mere custody for the victims of a *quasi* demoniacal possession to the level of a pathological condition—amenable to scientific medical treatment, and thus given a grand new impulse to humanity, that Miss Dix, about 1837, began her career of unexampled success in awaking the attention of the public, and securing the action of legislative bodies and others, toward reforming the incredible abuses and ameliorating the horrible condition which then existed in the vast majority of all receptacles for the “prisoner, the pauper, and the lunatic.” Beginning at her own home near Boston, she visited in person jails, poor-houses and asylums in every State east of the Mississippi river; and such was the magnetism of her frail and delicate person, such the simple eloquence of her appeals, such the tremendous array of indisputable facts, substantiated by her own personal observation, that she wielded a power over every State Legislature which no mere political influence could ever have reached. What all other classes of reformers, religious or social, seemed to have ignored, or not been aware of, she brought out to the light of day as the most pressing duty of the hour, for the people of the whole United States. She is said to have been instrumental, by her influence, in founding more than thirty hospitals for the insane in this country,

and several in Europe, one of the best of which is in the Island of Jersey. Having visited and been with Florence Nightingale, she became also, during the civil war, the superintendent of the system of army nurses at Washington. But we must leave to the forthcoming *memoir* the various details of her career. We are accustomed to felicitate ourselves in these days on the vastly improved condition of asylum service, on the great changes in public opinion in regard to the care of the insane, on the better appreciation and understanding of all questions connected with the treatment of this disease appearing everywhere in conference papers, reports of superintendents and charitable boards. It may be worth while to reflect and ask ourselves how much of all this may be owing to the solitary labors and toils of this one noble example, a true, unselfish, Christian altruism, Miss Dorothea L. Dix. The name will ever be inscribed and preserved high on the roll that records such names as Howard, St. Elizabeth, Florence Nightingale and Miss Fry.

QUARTERLY SUMMARY OF ASYLUM NEWS.

ALABAMA.—P. M. Bryce, M. D., superintendent of the State Insane Hospital, Tuskaloosa, has returned from Europe.

CALIFORNIA.—The only new appointments that have taken place in the asylums of California during the past year are: 1. Dr. W. W. McFarland, of Woodland, to be superintendent of the California Hospital for the Chronic Insane at Agnews; 2. Dr. J. W. Robertson, of Crescent City, to be third assistant physician of the State Asylum at Napa. It is expected that a third assistant will be appointed at the Stockton asylum as soon as legislature meets. Should this occur much will have been done towards remedying the under-staffing of the institution, of which Dr. Mays has had just cause to complain.

DAKOTA.—At the North Dakota Hospital for the Insane, Jamestown, new buildings are in course of erection. These include two ward buildings, boiler and engine house, amusement hall, a wing to the office building and several out-buildings for storage and stock purposes. The new wards will be somewhat larger than those now in use. "There is not a barred or grated window in the entire institution, and patients are not fretted by any appearance of prison life." The additional accommodations will provide for 300 patients.

ILLINOIS.—The main building of Oak Lawn Retreat, Jacksonville, was totally destroyed by fire September 21st. The fire caught in the attic from a defective flue leading from the kitchen and the building burned downwards. Everything was very dry, and in the total absence of water the flames had full sway. A well on the premises did not even fill the hose. A thousand willing men were there ready to check the advance of the fire, but they could only stand restless in their utter helplessness. It was found that the inch and a half pipe which leads from the water-works to supply the building was broken at the meter. The engine was moved to the place. The meter box slowly filled; the engine was started. But even the small five-eighths inch nozzle was supplied but a brief time. The case was hopeless. Nothing was possible but to rescue the furniture and contents of the building. This was done as long as it remained safe to enter. The structure was burned to the ground.

The main part of the Retreat was built about 1869, by Dr. Andrew McFarland. Later it was bought up by a stock company, the stock of which was subsequently purchased by Dr. McFarland, who thus again became sole owner and proprietor. The institution has gradually, by many and various additions, grown to large proportions. Besides caring for a large number of private patients it had the contract for the insane of Montana Territory.

The destroyed building contained twenty-two of the wealthier patients, none of whom were hurt or escaped. A local newspaper, to which we are indebted for this account, pays a tribute to Dr. Geo. McFarland and "his brave, heroic wife," who acted throughout with commendable zeal and discretion.

We regret to learn that Dr. Andrew McFarland was struck on the head by a falling cornice or by something thrown from one of the windows, and sustained a scalp wound about four inches long. He has been removed to the city hospital for treatment. This was the only casualty.

The loss to the family is considerable, involving furniture, clothing, papers, books, jewelry and other valuables. The property of patients was nearly all saved. At least two-thirds of the furniture was lost. The building was valued at \$20,000, and the insurance amounted to \$13,400. It is proposed to erect another building as soon as practicable.

Dr. L. H. Prince has published an excellent little manual for the use of the fire department of the Illinois Eastern Hospital for the Insane, Kankakee.

Dr. Prince has resigned his position as assistant physician to enter private practice in Chicago. He will be associated in practice with Dr. Charles T. Parkes, Professor of Anatomy in Rush Medical College.

Dr. Ludwig Hektoen, fifth assistant physician at the same institution has also resigned, and is to be succeeded by Dr. M. N. Crocker.

Complaint comes from the Southern Hospital for the Insane, Anna, Ill., of a water famine, the supply having been reduced to about 8,000 gallons daily on account of the excessive and continued drought.

INDIANA.—T. S. Galbraith, M. D., Medical College of Ohio, 1866, has been appointed superintendent of the Indiana Hospital for the Insane at Indianapolis, in the room of William Fletcher, M. D., whose term of service had expired.

In announcing himself as a candidate for re-election, Dr. Fletcher referred to the results he had accomplished for the hospital during his four years' work. He had succeeded in reducing the use of mechanical restraint from 250 per day in a population of 1,000 to almost *nil* in a population of 1,600; established and maintained a training-school for attendants and schools for patients; shown a larger ratio of persons discharged recovered and a smaller one of deaths in the last year than in any during the past decade, &c.

His request that he remain in office during the fifty-one remaining days of the fiscal year so that he might write the annual report, was unheeded by the trustees who gave the new superintendent immediate control. We regret to learn that politics entered largely into the election. Partisan newspapers contain bitter comments on the action of the trustees in the matter.

The new superintendent was educated at Ann Arbor and the Medical College of Ohio. He has been a general practitioner in Seymour, Ind.

It is said that Dr. Fletcher will establish a sanitarium east of Indianapolis.

IOWA.—Howell Tyler, M. D., formerly of Blackwell's Island Asylum, and for the past year first assistant physician in the Iowa Hospital for the Insane at Independence, has resigned his position to engage in private practice at Claremont, N. H., and E. B. Thompson, M. D., for the last year first assistant at the Wisconsin Northern Hospital for the Insane, has been chosen to fill the vacancy.

KENTUCKY.—All State medical appointments are in the gift of the Governor in Kentucky. A new Governor having just been inaugurated, asylum physicians, actual and would-be, are awaiting His Excellency's

pleasure. Dr. F. H. Clarke, superintendent of the Eastern Kentucky Asylum, Lexington, is a candidate for re-appointment.

MICHIGAN.—Miles H. Clark, M. D., of Ripon, Wis., has been appointed assistant physician at the Michigan Asylum for the Insane at Kalamazoo.

At the Eastern Michigan Asylum, Pontiac, a small steamer has been placed on Watkins lake for the use of patients. The lake is so near that male patients can walk to it and are then taken a mile across the water to the asylum camp-ground. At the camp there are facilities for cooking, and all parties enjoy a meal cooked *al fresco*. The extent of the lake permits a sail of about two miles, and the steamer is in constant requisition. Female patients ride to the lake. All things considered, the camp-ground and the steamer have done more to break up the monotony of asylum life than anything else Dr. Hurd has ever known. "It is worth more than a dozen amusement halls for the summer diversion of patients."

MISSISSIPPI.—At the East Mississippi Insane Asylum, Meridian, Dr. G. S. Johnston occupies the place as assistant physician formerly held by Dr. J. M. Buchanan, who has resumed the practice of Medicine in Meridian.

MISSOURI.—State Asylum No. 3, at Nevada, Mo., will be open for the reception of patients October 1st, 1887. The present capacity of the hospital is 270, which will be doubled in another year. The buildings are equipped with all modern conveniences. The staff consists of Dr. Young, superintendent, Dr. Garden, first assistant, and Dr. True, second assistant.

The last legislature appropriated \$94,000 for improvements at the State Lunatic Asylum, Fulton. When made they will add much to the comfort and convenience of the inmates. The capacity will thus be increased to 650 beds. The following now compose the medical staff: Dr. W. R. Rhodes, superintendent, and Drs. A. Wilkerson, Hickman Young and R. S. Wilson, assistant physicians.

NEW JERSEY.—The State Lunatic Asylum at Trenton received an appropriation of \$100,000 from the legislature last winter, for the purpose of erecting a new building, which is now nearly completed to the water table. According to the contract it is to be ready by November, 1888. It is to be built of stone, (gray sandstone), three stories high, and when completed will accommodate three hundred patients. The structure will have a centre building and two wings of three corridors each. Each corridor will accommodate fifty patients. There will be but two dining-rooms, one for either sex. Ventilation, heating, cooking, &c., will be from a separate boiler-house and have no connection with that of the main building. This new building has long been needed, and when finished will afford great relief from present overcrowding. There are now over seven hundred under care, while the capacity of the asylum is five hundred.

NEW YORK.—Joseph O. Reed, M. D., and Daniel H. Arthur, M. D., have been appointed *internes* at the State Asylum for the Insane, Middletown, N. Y., for a period of two years.

Harry A. Wood, M. D., University of Michigan, Ann Arbor, 1886, has been appointed clinical assistant at the State Asylum for Insane, Buffalo, N. Y.

At the State Lunatic Asylum, Utica, athletic sports for attendants and patients were held August 27, 1887. Prizes were given to the winners. A school for patients has been established in the same institution. An appropriation has been received to light the asylum by electricity and to repair several of the wards for male patients.

At the Willard asylum the Edison Company have installed an electric plant. Much of the labor in connection therewith has been performed by patients and attendants.

On February 1st, 1887, Dr. John C. Shaw resigned the superintendency of King's County Insane Asylum, to enter upon the special practice of nervous diseases in Brooklyn.

Dr. John A. Arnold, formerly first assistant physician under Dr. Parsons on Blackwell's Island, and later in this asylum under Drs. Parsons and Shaw, who resigned his position here in 1881 to accept the superintendency of the Hospital for Incurables and after a few months' service accepted the superintendency of the King's County Hospital, was appointed general medical superintendent to look after the sick and insane in the Almshouse, Hospital, Asylum and the Branch Asylum at St. Johnland.

Dr. G. N. Ferris was placed in charge of the Asylum at Flatbush.

Dr. D. A. Harrison was placed in charge of the County Farm at St. Johnland. Dr. Harrison was formerly of the Ward's Island staff.

On June 1st, 1887, Dr. Gilman Osgood was appointed assistant physician.

On August 15th, 1887, Dr. Harry E. Bradley resigned the position of druggist and clinical assistant to become assistant physician at the Northern Hospital for the Insane, Winnebago, Wis.

Great interest at present centres in the St. Johnland institution. During the past year ten farm buildings have been erected and are now occupied by 200 patients chiefly of the quiet, demented class who are able to do farm work. Sixteen permanent cottages are in process of erection and will accommodate 450 patients. They will probably be ready for occupancy next spring.

September 27th, 1887, in compliance with the charge of Judge Beckwith, a jury brought in a verdict of "no cause for action" in the case of the Buffalo Asylum attendants charged with abusing a patient who died a few months ago with fractured ribs and other injuries. Reference is made to the matter elsewhere.

OHIO.—At the Toledo Asylum for Insane, Toledo, O., which is not yet opened, but which will probably be ready for the reception of patients next November, the following appointments have been made: Dr. H. A. Tobey, medical superintendent. Dr. Tobey is from Lima, O., and was for four years superintendent of the Dayton Asylum for Insane, Dayton, O. Dr. H. C. Eyrnan was appointed assistant physician. He was for two years an assistant at the Athens Asylum. At the last meeting of the trustees Dr. Skinner was also appointed assistant physician. He was some years ago superintendent of the North Western Asylum for Insane at Toledo, O.

Dr. A. B. Richardson, superintendent of the Athens Asylum, has returned from a tour of asylums in Great Britain and Ireland. While abroad he acted as traveling correspondent of the *AMERICAN JOURNAL OF INSANITY*. His first letter appeared in our last, his second in this issue, and others will be published in due course.

OREGON.—The calendar of appointments and resignations at the State Insane Asylum, Salem, has shown an undesirable acitivity since its opening in 1883. On October 22, 1883, Dr. Horace Carpenter took charge* as superintendent, with Dr. J. W. Givens first assistant physician, and Dr. H. J. Giesy second assistant physician. October 1st, 1885, Dr. H. J. Giesy, second assistant physician, resigned, and Dr. Horace Cox was appointed second assistant to fill the vacancy. April 30th, 1886, Dr. Horace Carpenter, superintendent, resigned. May 1st 1886, Dr. S. E. Josephi was appointed superintendent. November 6th, 1886, Dr. J. W. Givens, first assistant physician, resigned. November 13th, 1886, Dr. W. T. Williamson appointed first assistant physician. May 3d, 1887, Dr. Horace Cox, second assistant physician, resigned. May 9th, 1887, Dr. E. L. Irvine appointed second assistant physician. July 1st, 1887, Dr. S. E. Josephi, superintendent, resigned. July 1st, 1887, Dr. Harry Lane became and remains superintendent. The number of patients is at present 462—(20 males and 142 females.) An additional wing is being built to accommodate seventy-five more patients.

PENNSYLVANIA.—George D. Staley, M. D., has resigned his position as first assistant at the State Lunatic Hospital, Harrisburg, to enter private practice at Easton, Pa. His connection with the hospital dated from June, 1875. He is succeeded by M. U. Gerhard, M. D., formerly second assistant.

RHODE ISLAND.—Wm. J. Schuyler, M. D., was appointed second assistant physician to the Butler Hospital Asylum, July 1st, 1887, to fill the vacancy caused by the resignation of James W. Craig, M. D.

Dr. Schuyler graduated at the medical department of the University of New York in March, 1885, served for sixteen months in Charity Hospital, Blackwell's Island, and was afterwards appointed Clinical Assistant in the Bloomingdale Asylum, N. Y., where he remained until his appointment at Providence.

TEXAS.—At the State Lunatic Asylum, Austin, the management of the new superintennent, Dr. J. S. Dorset, has recently been the subject of legislative investigation. We are informed that charges were preferred by disappointed place-seekers and discharged attendants, and that Dr. Dorset has been completely vindicated.

The financial and sanitary condition of the institution are reported by the board of managers to be excellent. There have been but three deaths during the summer out of a population of nearly seven hundred. Drs. John Preston and J. A. Davis are the assistant physicians.

VIRGINIA.—At the Central Lunatic Asylum, Petersburg, Dr. Randolph Barksdale was re-elected superintendent April 15th, 1887. Drs. W. F. Drewry and W. C. Barker were appointed first and second assistants respectively.

WEST VIRGINIA.—There are now four assistant physicians at the West Virginia Hospital for the Insane at Weston. Drs. Robert L. Brown and T. M. Hood are at the male, and Drs. J. S. Lewis and H. B. Jones are at the female department.

WASHINGTON TERRITORY.—Washington Territory is well abreast of the times in the care of her insane. The last legislature, two years ago, appropriated \$100,000 for a new building of brick and stone, at Fort Steilacoom, to take the place of the old one story military barracks which have been used as wards for sixteen years. These buildings are thirty years old and quite dilapidated, besides being all full. They contain 220 patients—three-quarters of whom are male. The new building is just finished, and will accommodate 300 patients. It is on the linear plan, a central building three stories high, with a three-story wing on each side, the total length being 413 feet. The first floor of the centre will be devoted to offices, dispensary, etc., the second to living rooms for the officers and their families, and the third to an assembly room. This is made as large as possible so as to accommodate all the patients, and will be used as chapel, amusement hall, and theatre. A commodious stage has been erected for the latter purpose. The building is heated by steam and illuminated by the Edison incandescent system of electric lighting. All the modern improvements have been introduced into the kitchen, closets and laundry, and the hospital is complete in all its appointments. Greatly to the credit of the building commissioners, who are also the trustees of the hospital, this building has been erected within the sum appropriated. It is all ready for occupancy except the furniture. As the legislature will meet in December, the building will probably not be used until after that time, as an appropriation for furnishing is urgently needed and will, it is expected, be promptly secured.

Dr. S. D. Starkwather, assistant physician, resigned September 5th, on account of ill health. Dr. N. J. Redpath was appointed as his successor.

WISCONSIN.—The following appointments have been made at the State asylum at Winnebago: Dr. Walter Kempster, superintendent, *vice* Dr. R. M. Wiggington, resigned; Dr. Walter S. Fleming, first assistant, *vice* Dr. E. B. Thompson, resigned; Dr. Mary Reynolds, third assistant, *vice* Dr. Harry Bradley, resigned.

Dr. W. E. Fernald, formerly of the State Hospital at Madison, has accepted the superintendency of the State school for Feeble Minded Children at Boston. His successor has not yet been appointed.

The stables of the State Hospital for Insane, Mendota, Wis., were destroyed by fire last August. A local newspaper of August 24th contains a patient's heartfelt, though somewhat sensational, tribute to the superintendent, Dr. Buckmaster, who did his duty manfully on the occasion. "The imminent danger was over in eighty minutes. But O! 'twas an hour of fearful issues! * * * Do you understand the facts, that the man who is supreme ruler in this 'city set upon a hill,' stood upon the battlements commanding the defences that were to prove the salvation of some seven hundred helpless souls, committed to his charge? That he was their sole hope and refuge from death, by being cremated alive? That while he was their saviour, he was still their detainer? While he was their deliverer, he was no less their keeper? Can you imagine, that while he was making superhuman efforts in so noble a cause, that throughout the immense building from roof to basement, inside and out, scores of subalterns, were obeying his slightest motion? Noiselessly, actively, efficiently perfecting the great rescue? Do you know that while imperilling his own life to

save others from the flames, still he was compelling those others to hold a fearfully near interview with the flames? Few men, I think, could have so bravely faced such a dreadful necessity !

On peril's peak in that fell time,
His soul unfaltering stood, sublime."

CANADA.—James Russell, M. D., formerly of Binbrook, has been appointed superintendent of the Asylum for the Insane, Hamilton, Ontario, in place of J. M. Wallace, M. D., who resigned on account of ill health.

T. J. W. Burgess, M. D., for many years assistant superintendent of London Asylum, has been appointed assistant medical superintendent of Hamilton Asylum. Drs. Reynolds and Fairchild are assistant physicians in the same institution.

Dr. Beemer, formerly assistant physician, has been promoted to the position of assistant superintendent at the London asylum.

A Protestant asylum is to be built at Montréal before long. It is announced that all of the money required to erect the building has been subscribed, and those who have the scheme in hand are determined to make it a success. This asylum is said to be one of the results of Dr. D. Hack Tuke's visit to Lower Canada.

GREAT BRITAIN.—Dr. Octavius Jepson has been granted an annuity of £800 on his retirement from the superintendency of the City of London Lunatic Asylum.

BELGIUM.—A bronze statue of Joseph Guislain was unveiled with appropriate ceremonies July 10th, 1887, in Ghent, the city of the illustrious man's birth. Our French and Belgian exchanges contain full reports of the interesting proceedings. Guislain was born February 2d, 1797, and died April 1st, 1860. Dr. Jules Morel, physician-in-chief of the Hospice Guislain, calls him "le Pinel et l'Esquirol de la Belgique."

[NOTE.—The Quarterly Summary of Asylum News is a new departure. Its success or failure will depend upon the amount of assistance received from our readers throughout the country, and they are hereby cordially invited to continue each quarter the generous contributions that have enabled us to inaugurate the much needed department in the present issue.—EDS.]

AMERICAN JOURNAL OF INSANITY. JANUARY, 1888.

SYPHILIS AND ITS RELATION TO INSANITY.*

BY GEORGE H. SAVAGE, M.D., F.R.C.P.
Superintendent of the Royal Ontario Asylum, Toronto.

Gentlemen:

I feel the difficulty of my task very strongly, and since I feel that the subject which I have chosen is one of such wide range that instead of you there should have been a series of meetings for its special consideration. But here I am, and I trust, with your help, make the most of my experience, hoping that the wealth of your knowledge will cover my deficiencies. Already the subject of the relationships of syphilis to other diseases has been so fully discussed that many must say, What more can you hope to add to the fact-heap? I can but hope to do more than give more facts, and suggest some relationships which may be of use in the treatment of a large and I fear increasing number of cases.

One may be guard against being carried away by the fashion of the day. Every new fact in pathology is eagerly seized by the student of medicine and is tried in its turn to every possible condition, no one has like the generally held view of a parasite who occupies a well placed position in association with some other, some to the rounds in. The matter did not at first seem to have the character of varying diseases.

We are as subject to waves of disease as ever was. Bacilli may reign to-day, but humors or chemical factors may rule to-morrow. Every wave leaves something behind; it may have destroyed old landmarks, but it will leave a certain shore line of its own. The syphilitic interpretation of every nervous

* A discussion led by Dr. Savage in the Section of Psychological Medicine and Nervous Diseases of the Ninth International Medical Congress, held at Washington, D. C., September 5th-10th, 1887. See also AMERICAN JOURNAL OF INSANITY, October, 1887, pp. 250 et seq.



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SYPHILIS AND ITS RELATION TO INSANITY.*

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Gentlemen:

I feel the difficulty of my task very strongly, and also I feel that the subject which I have chosen is one of such wide range that instead of one there should have been a series of meetings for its special consideration. But here I am, and I must, with your help, make the most of my experience, hoping that the wealth of your knowledge will cover my deficiencies. Already the subject of the relationships of syphilis to other diseases has been so fully discussed that many will say, What more can you hope to add to the fact-heap? I can not hope to do more than give some facts, and suggest some relationships which may be of use in the treatment of a large and, I fear, increasing number of cases.

We have to guard against being carried away by the fashion of the day. Every new fact in pathology is eagerly seized by the workers in medicine and is tried to be fitted to every possible condition; we are too like the ignorant child with a puzzle who taking each piece in succession without reason, tries to fit the rounds into the squares and ovals as well as into the squares of varying dimensions.

We are as subject to waves of thought as ever men were. Bacilli may reign to-day, but humors or chemical fancies may rule to-morrow. Every wave leaves something behind; it may have destroyed old landmarks, but it will leave a certain shore line of its own. The syphilitic interpretation of every nervous

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disorder was the high tide, now we have to take a just estimate of the shore line of the experience which has been gained. At first I intended that this should be my object, but I soon found that such work must be for less busy men than I; so I am driven to take a kind of middle course, not neglecting the experience of others, but at the same time chiefly relying on my own, modified by what I have read in the works of the leaders in medicine. I give the digested results of reading and experience. When I began my work I circulated papers marking the lines along which I wished the discussion to run.

I shall myself take some special parts of the subject, and will, with your permission, introduce into their proper places contributions from others who have worked more specially at certain other branches. In my part I shall devote most of my time to the clinical aspect, adding, where I have been able, the pathological conclusions to the cases.

As a preliminary step I wish to call attention to some well-established facts which have special importance to the matter in hand. Dr. Wilks, among many of the older authorities on constitutional syphilis, pointed out that brain lesions following syphilis are very frequent in cases in which the secondary symptoms have been but slight. My experience bears this out. Again I would say, that in my experience among the children of the insane who have formed my chief studies but few have shown any signs of constitutional syphilis. Among the cases to which I shall have to refer there are many in which some local specific trouble has appeared to be the starting point from which general degeneration of the nervous system has begun. In such cases the specific changes acted rather as local irritants than as a constitutional poison. I hope to make clear that in my opinion there is no possible line to be drawn between some cases of syphilitic nervous degeneration and general paralysis of the insane. I shall maintain, too, that true general paralysis may be caused by syphilis alone or combined with other causes. On the other hand I shall show that it is not true that all general paralysis must have a syphilitic history.

INSANITY, IDIOCY AND MORAL PERVERSION DUE TO INHERITED
SYPHILIS.

My experience, which has, however, been small, is that but few cases of congenital weak-mindedness depend on congenital syphilis. This is fully borne out by that of such men as Drs. Ireland, Lang-

don Down, Shuttleworth and Beach. Dr. Down in some recent lectures, says not more than two per cent among idiots show any signs of congenital syphilis. There are several points in such a startling statement to be considered. In the first place we have to remember that a very large number of the children of syphilitic parents die *in utero*, many also die of early childish complaints, often associated with convulsive seizures. In one case, to which I shall have to refer later, of thirteen pregnancies only three brought forth living children and these were never strong. Therefore we have to remember of the children likely to become idiots a large number do not survive. Yet with all this, it is a startling fact, and as a fact, I must accept it, that few of the unstable offspring of syphilitic parents become idiots. I shall record one case of weak-mindedness following a steady course in a woman whose symptoms depended on congenital syphilis. In this case the disease began by destroying some of the organs of sense, and the mental aspect of the case depended on the sense deprivation. I expected to find more similar cases among the idiots with sense deprivation.

I have another case to record of a young lady whose mental symptoms were due in part to sense privation and in part to direct inheritance of intellectual and moral weakness; or, to put it otherwise, to inherited want of power of control. It will be found from common experience that congenital syphilis interferes with brain development by causing disease of the organs of sense or by starting disease of the cranial bones, which in turn causes arrest of or injury to the young brain. Such disease, or some other disorder of the brain may set up convulsions or true epilepsy, which may prevent healthy mental growth. There is yet one other relationship which I should like to draw attention to, and it is this, that I have met with several cases of insanity occurring in adolescents, which has a great tendency to pass into weak-mindedness: in these persons there has been a history of general paralysis in the father, and though the disease was not manifest for some time after the begetting of the child, yet in some I have reason to believe that syphilis had something at least to do with the causation of the general paralysis. In these cases then the degeneration of the parent depended on syphilis, and the instability of the offspring also had a similar cause. I want more facts to establish this last relationship.

CASE OF CONGENITAL SYPHILIS, WITH INJURY TO SENSE ORGANS AND DEVELOPMENT OF DELUSIONAL INSANITY.

Sophia A. B.; single; thirty-six; housekeeper; sober and moral; one sister deaf; brother subject to some remittent inflammation of eyes. No history can be obtained of the parents. This is the first time she has been in an asylum. She is undersized; has a typical, specific head, with large frontal and parietal bosses. Both eyes have suffered from interstitial keratitis. Old deformity of the root of the nose; old disease of both ears, with double deafness; the incisors markedly of the Hutchinson type. This patient had hallucinations of both sight and hearing. She had suspicion about her food being poisoned. She heard voices directing her what to do. Her voice was indistinct and nasal. She was destructive, self-contained and preoccupied. She chattered to herself, but could not be induced to do any work. Nothing could be done to rouse her, and for the twelve months she remained in the hospital she was solitary and deluded. She was in every respect a typical case of insanity depending on subjective sense impressions. She reminded me much of certain deaf mutes in her manners. I believe in her case the congenital syphilis chiefly acted by impairing the senses. Doubtless her whole nervous system, as well as her body was defective from birth, and thus was predisposed to suffer more readily from the enforced solitude of deafness and blindness.

INHERITED SYPHILIS WITH TYPICAL BODILY SYMPTOMS, AND WITH COMPLETE MORAL PERVERSION.

A young lady aged eighteen, the daughter of a most abandoned father, who married a woman of immoral character. She had a head, nose and teeth of the syphilitic type and also keratitis. She was weak-minded and was treated as an idiot. At puberty she developed the most frantic sexual desires and it was necessary to take special measures for her protection. She was placed under the care of Dr. Langdon Down, who will be able to give fuller details of her history. I can only say that his treatment of her was very satisfactory in its results, and she became, though childish and weak, yet self-controlled and lady-like. Mental defects were present in this case as in the last but not to such a marked degree. The direct transmission of overpowering lust is the most interesting point in the case. I have met with a good many doubtful cases of the offspring of general paralytics, and though I have some ground for believing that some of them have come of syphilitic fathers

who at the time of their begetting were suffering from syphilis and not from marked general paralysis, yet I can not vouch for this. In some of these cases fathers who have died of general paralysis have begotten children four or six years before they developed the disease, and these children have either died of convulsions in childhood, have not developed normally, or have at adolescence or at puberty passed into weak-mindedness. In such cases the prospect has been very unfavorable.

INSANITY ASSOCIATED WITH ACUTE SYPHILIS.

I have here to say that the cases of insanity in which acute syphilis is the chief cause seem to me to be very rare. I have to communicate one case, kindly contributed by Dr. Wiglesworth, of the Rainhill Asylum, Lancashire.* In this case acute syphilis was followed by insanity and in the end the patient died. The remarks of Dr. Wiglesworth quite fall in with my experience. I have yearly cases admitted into Bethlem with some form of venereal disease fresh upon them, but as a rule the disease is the result of the insanity with its loss of care and self-control, and the disease has little or nothing to do with the insanity, or only is enough to color it. I have at present one case of general paralysis of the insane in which a single man of irreproachable character developed uncontrollable lust, and managed to contract a chancre. This was treated on his admission into Bethlem, but has had no effect on him in one way or another. I commonly, receive general paralytics and others with some form of sore upon the penis. I have therefore felt it necessary to eliminate such case from the really large group of cases of general paralysis, in which syphilis plays some part in the production of the disease. I do not believe that all general paralysis depends on sexual excess or on syphilis, but I recognize that sexual excess, and also venereal disease are common in this disease.

I cannot say that I have ever come across a case in which the febrile disturbance not uncommon with the early disorders of constitutional syphilis could be given as the starting point of an attack of mental disorder, but I have heard one or two surgeons say they had seen delirium occur, and from this I feel sure that such cases will be found, and perhaps some here can give examples.

INSANITY, WITH ONSET OF SECONDARY SYMPTOMS.

I have one very interesting case to bring forward in this relation,

*See Clinical Cases this number.

and I would say that such cases are not so rare as the last group, though it is not often that one has the opportunity of tracing the growth of the bodily and mental symptoms so clearly. The patient whose case I give was a trainer of race horses, whose occupation led him to suspect every one who came near him, and when he got double optic neuritis, due to syphilis, the most troublesome symptoms depended upon his natural suspicion, which became exaggerated in consequence of his imperfect sight. The rapid cure of the syphilis and the immediate removal of the mental symptoms leave no doubt as to the real connection between the two diseases.

I have one other case which might be placed under this head, in which the mental symptoms developed directly with the ptosis, external strabismus and mydriasis, that marked the constitutional disease, and which passed off with the relief of those symptoms. In this last case the syphilis remained present though latent, and reappeared in other parts of the body for three years after the mental recovery, though the patient has never since had any relapse mentally.

INSANITY, WITH CONSTITUTIONAL SYPHILIS. RECOVERY.

Martin J.; aged twenty-eight; single; trainer of race horses. No history of insanity in his family; has been strictly sober for the last four years. He held a position of great trust and responsibility, and was constantly on the lookout against touts and persons who might wish to injure the horses. He contracted syphilis some four or five years before but had not suffered much since. He was admitted into a general hospital suffering from ptosis, external strabismus and other oculo-motor troubles due to syphilis, as well as loss of sight. In the hospital double optic neuritis developed and with it great impairment of sight. With this he became more suspicious and threatening. He believed persons stole his things and he was violent. He thought the other patients were against him and wished to kill him.

On admission into Bethlem he made no complaint of headache; he took food fairly, but slept badly; besides the right ptosis there was marked turgescence of retinal vessels and optic neuritis most marked in right eye. He was treated at first with iodide and later had calomel baths and inunction of mercury.

He was slightly salivated a month after admission, and steadily improved after that time. At the end of two months from admission he was discharged perfectly cured both of his ocular and

mental troubles; both seemed to clear up under the specific treatment.

This patient has now remained well over eleven years, and is following his work as well as ever.

The chief points of interest are that this patient with the onset of marked constitutional symptoms developed insanity of a type which was to a great extent the outcome of his calling—only exaggerated caution—and with appropriate treatment the bodily and mental symptoms all disappeared. Permanent cure has resulted.

WEAK-MINDEDNESS AND STUPOR, ASSOCIATED WITH PTOSIS AND
STRABISMUS. ULTIMATE PERMANENT RECOVERY.

Henry P.; admitted 1875; married; no family; no neurosis in family. Contracted syphilis six years ago. Had been sober and quiet. Eight or nine months before admission he had several fainting fits. Nine days before admission he began to talk incoherently; he was sleepless; he had exalted ideas; his memory was weak. On admission he was excited at first, but soon passed into a dull, preoccupied state. He was diagnosed not to be suffering from general paralysis. Within a month he became wet and dirty. There was ptosis and external strabismus of right eye; the discs appeared congested; no apparent loss of sight. Iodide of ammonium was given in ten grain doses every four hours. He passed into a more pronounced state of stupor. After four months he had recovered power in his eyelid, lost the strabismus, but there was no mental gain. After six months' treatment he was so obstinate about his food, and so weak, that it was decided to leave him alone—as we thought to die; but he soon after began to improve, and once having taken a turn he rapidly convalesced, the only symptom remaining being dilatation of the right pupil.

A year after his discharge he had symmetrical inflamed nodes on his shins; a year later a serpiginous ulceration of nose, rapidly spreading, and in 1879 a similar ulcer on his prepuce. Mercury relieved these symptoms, and a prolonged treatment by mercury and the use of Turkish baths appear to have completely removed all trace of syphilis, and he is fully occupied in business in the city.

SYPHILIS, GREAT DISFIGUREMENT, NEUROTIC HISTORY, RECURRENT
INSANITY.

William H. L.; single; forty-two; architect; brother insane, but recovered; sober; industrious. Admitted February, 1886.

He had one previous attack eighteen years ago. He contracted syphilis twenty-four years ago, and was treated for two years; he developed, some four years after contracting the disease, secondary symptoms of a very severe kind. He had ulcerations of throat and nose, and the whole of his face was disfigured, his mouth being contracted and misshapen. The first attack of insanity was coincident with the severe constitutional symptoms.

He has felt the isolation caused by his appearance, but has worked steadily. He became depressed and unsocial, sleepless, then excitable. He thought his mother wanted to poison him. The immediate cause of this attack was said to be an operation on his mouth which besides being painful was of no service to him.

On admission he was suspicious, avoided others, but was at the same time excitable. He said the scars on his face were due to explosions of cannon. There is no truth in this. He was tried on several occasions on leave of absence, but he appears to have passed, after eighteen months' treatment, into a state of mental weakness, and there is little prospect of cure, though he appears to be in good general health.

The above examples, with those of Dr. Wigglesworth show that insanity may arise from the bodily disorders of syphilis in its primary or secondary stage, and may be relieved by the cure of these symptoms. Next I shall briefly refer to the mental effects of syphilis.

Syphilis may by its physical symptoms cause insanity directly, but it is more common to find cases of syphilitic hypochondriasis in which syphilis is the explanation not the cause. In a few cases I have met with persons who having had syphilis have felt the disgust, which is natural, in a very exaggerated degree, so that their whole lives became narrowed, and in the end they became distinct cases of hypochondriasis, with the syphilis as the primary cause. I recognize that most of the cases who accuse themselves of impurity and of having some contagious disease which they fear to communicate, are but cases of exaggerated self-consciousness, and that it is but an accident whether they say they have syphilis, the itch, or are morally leprous. I think it hardly worth my while, in a meeting of this kind, to repeat the many examples of this kind which are daily being brought before us.

I add one case, in which syphilis played a part, both moral and physical, in producing melancholia with dangerously suicidal symptoms.

SYPHILIS, HEREDITARY NEUROSIS, DEPRESSION, MELANCHOLIA.

Fred. J. D.; single; barman. Admitted February 14, 1887. Uncle and cousin insane; one uncle died of diabetes. Fifteen months before admission contracted syphilis and became very dull, but showed no signs of insanity. In October, 1886, first showed symptoms of insanity; he suddenly became emotional, noisy and excited. He became reasonable again, but had recurrences of this kind. On December 15 he cut his throat and had to be taken to a general hospital. His throat got well, but he said he should cut it again. He was much given to masturbation. He has always been sober. He was partly aphasic on admission. Pupils equally reacting; memory good; tongue normal. He worried for some time because he could not afford to marry. He had hallucinations of sight and hearing. After admission he improved greatly, but had several fits of depression, and one of great loss of self-control, so that he shrieked and rushed about saying he would kill himself.

In the above case the syphilis was in my opinion but a very slight part of the cause of his insanity, but yet was a distinct factor, and I have met several in which dread of syphilis or dread of infecting a wife has induced a man to refrain from marriage and led to masturbation and loss of self-control.

SYPHILIS PRODUCING EPILEPSY WITH OR WITHOUT INSANITY.

The general physician needs not to be reminded of the many cases which are to be met with under this heading, at every outpatient clinique we meet with them and among the cases of cured epilepsy probably the largest numbers come from among the syphilitic. There are just one or two points to which I should like to refer under this head.

First. That in nearly all these cases some mental loss is certain to appear if the fits continue.

Second. I think I find that in epilepsy of syphilis mental degeneration is very often unusually rapid.

Third. That though there seems to be a definite cause it does not follow that this is certainly curable.

And last, though the symptoms point clearly to some local lesion we are not certain to find any correspondingly distinct coarse lesion within the skull.

The epilepsy may be the one chief symptom, or it may be but one sign of a widely spread disease. Thus epileptiform fits occurring in these patients may mean the first sign of general

paralysis, or one of the signs of locomotor ataxy, or recurring epilepsy due to *tumor cerebri*, or to some more intangible changes in the central nervous system producing motor instability. I sub-join these typical examples. I have with me notes of Dr. Warner's cases.

SYPHILIS PRODUCING SIMPLE EPILEPSY.

P. A.; formerly railway guard; married; aged forty-nine; attendant in an asylum; steady; trustworthy and hard-working. He rose steadily till he became head of a ward; there were at this same time nodes and other evidences of old syphilis which he had contracted when about twenty-four years old. He had very bad ulceration of his throat. Without any warning symptoms five years ago he suddenly lost consciousness and had a true epileptic fit. He was placed under constant treatment, but fits recurring he had to be pensioned. After removal from care and responsibility he improved in every way and had no more fits. His wife, who had been an attendant at Bethlem, had many children who were all very healthy, showing no sign of the syphilis. For some five years no fits recurred, but they then reappeared and will doubtless end in mental weakness, though at present he remains trustworthy and sane. In this case the fits are general without cry or warning, they are of rare occurrence, but may have marked effect in producing mental weakness sooner or later.

SYPHILIS, LOCOMOTOR ATAXY, FITS, INSANITY.

In the next case the symptoms were more mixed. A married man contracted syphilis in his early youth, and after about five years developed ptosis and other signs of cranial-nerve implication. Under treatment he recovered. He had little or no other local troubles from his syphilis, but he showed signs of locomotor ataxy, and later fits recurred at irregular intervals. These fits had a marked effect on his mind chiefly shown by loss of memory, but beyond this there was no loss of business capacity nor was there loss of control. He had loss of power in lower limbs and over bladder; he also became all but impotent. In this case the changes are wide-spread and are not to be localized. There seems some ground for thinking that the syphilitic disease of the central nervous system has made it very unstable so that irritation about the bladder may be the efficient cause of a nervous discharge.

In the next case the epileptic fits are associated with marked mental disorder, and thus we have given a case of simple

syphilitic epilepsy not cured by treatment. A case of wide-spread syphilitic disease with epilepsy as an epiphenomenon, and lastly epilepsy associated with coarse brain disease.

**SYPHILIS, MISCARRIAGE, HEADACHE, VOMITING, JACKSONIAN EPILEPSY
AND OPTIC NEURITIS WITH MELANCHOLIA.**

Alice W.; married; aged forty; admitted April, 1887. No neurosis in family. Has had thirteen pregnancies, first four miscarried at seven months; fifth survived, but is weakly; sixth, miscarried at three months; seventh, living and healthy; eighth and ninth, miscarried at three months; tenth, still-born at seven months; eleventh is a boy living, has fits. History of cancer in brother and sister.

In December, 1886, began to be suspicious and saw strange things. Heard people calling after her. She had twitchings in left foot, and her first fit, starting in the left foot, occurred in December. On admission she was described as small, feeble and depressed. She was preoccupied and dull, feared something was going to be done to her, or that her children or relatives were being killed. She had a fit January 15, and another March 23. The fits are preceded by restlessness, head and eyes turned to right, convulsions starting in left foot become general, unconsciousness is complete, and after the coma she suddenly awakes in terror; greater loss of power in left side after the fits. She bites her tongue; the left pupil is the larger, both react. There is double optic neuritis, but no vomiting, and any local pain is referred to the forehead on right side. She was treated by liq. hyd. perchlor. 3 i; potassii iodid. gr. v. t. i. d.

June 19, another fit of the same kind. Since this date fits have been more frequent, and she has become more emotional; though mentally weak and emotional she has been allowed to go home.

Her husband had syphilis nearly thirty years ago, and has syphilitic laryngitis at present.

**SYPHILIS PRODUCING MENTAL WEAKNESS—A WITH, B—WITHOUT
PARALYSIS.**

The group to which I now wish to refer is the most difficult to handle, and I fear my experience is largely gleaned from watching the life histories of those whom one has known as friends or as fellow students. I think most of us must have experience of men who between thirty-five and fifty become almost suddenly old. We may know that they have suffered from constitutional syphilis

and have had more or less secondary troubles, but for years little or nothing has given cause for alarm. As a rule most of these cases have some other complications, but some run a straightforward course to mental degeneration. In these latter my experience leads me to think that the signs of mental senility are the most common and noteworthy symptoms. Repetition of small anecdotes, of only personal interest, childish interest in trivial matters, and weakness of will, while there is irritability of temper and self-assertion, there is often some appearance of exaltation and neglect of the simpler conventional rules of society. I own that these are but slight outlines to give of a special disease, but any one who has watched cases of this kind will recognize them as not uncommon.

Such symptoms as I have described may gradually increase and leave the patient childish, to die after several years of dementia, or what is more common in my experience, a single fit may lead to rapid degeneration, or a fit may give the case the aspect of one of general paralysis of the insane. There are no hard and fast lines in pathology, and we meet with every phase of ruin in the degenerating nervous system. In one the fabric tottering to its fall after one shock, in another remaining a wreck of itself, yet bearing in outline its old form through years of a kind of calm.

SYPHILIS, HEMIPLEGIA, MENTAL WEAKNESS.

John S. S., admitted November 30, 1886; widower; aged forty. No neurotic history; had syphilis about three years before admission; business worries for a year or more. In July he had loss of power in his left side. His walk was feeble. His mind at the same time became confused, his memory failed, he was irritable and attempted violence. On admission left pupil enlarged, reflexes dull, left leg thrown forward unduly in walking; he was weak on one side; he had a quiet, dull aspect; he would sit for hours appearing to be reading the same page. He had no knowledge of his surroundings. His appetite was fair, bowels regular, rectal and vesical control normal. He was placid and contented. He had some swelling of his left foot which became ulcerated, but this in no way seemed to affect him. Memory for recent events almost completely destroyed; no tremor of tongue or lips, and no clipping of words. He was treated with iodide with no beneficial effect. The sore on the left foot had a specific aspect, and was cured by local mercurial treatment. He remains quiet, contented and weak-minded.

We have frequently similar cases, and though we may get a similar series of symptoms in other patients with hemiplegia whether due to syphilitic lesions or not, we can not pass over the fact that such cases follow syphilis, and may be due to vascular disease, to local softening or to local gummata. I have met with local minute softenings which have produced serious symptoms from their occurrence in the pons or medulla.

Under this head it is well to consider some other cases to which detailed reference will have to be made later. I am quite used to seeing cases in which some local cranial nerve lesion follows syphilis in due course, and which in its turn may be followed by progressive mental weakness, but besides these cases I wish to call attention to those in which some sensory trouble of a like nature is followed by mental weakness. This part of my subject passes quite imperceptibly into the part devoted to general paralysis of the insane, and so naturally finds its place there.

I would only say now that we appear to have some cases in which a local syphilitic change suffices to disturb the mental balance more or less permanently, but the process is not a steadily progressive one; on the other hand we may have similar changes setting up a degenerative process which can not be arrested. In each of these cases the history and the early symptoms may be the same, and we can only guess as to whether there is to be weak-mindedness associated with a tendency to sudden outbreaks of disease, or if the process will be more uniform and follow the course which is called that of general paralysis.

SYPHILIS ASSOCIATED WITH GENERAL PARALYSIS.

This part of my subject will be the one about which there will be the most difference of opinion. At the very foundation of this subject there is this question, which has been debated over and over again, as to whether general paralysis is a definite disease. I for one would say that in the true acceptance of the word disease it is not one. We have learned that albuminuria and degeneration of the kidneys are not equivalents. We know that with degeneration of the kidneys albumen is pretty sure to occur, and we know that certain mental symptoms, specially those which show marked and progressive loss of mental power are commonly associated with general paralysis. There are many causes which may set the kidneys out of order, and almost any of these may start a progressive disease in these organs which will incapacitate them from performing their functions. And similarly there are many condi-

tions which will interfere with healthy action of the brain, and the whole nervous system, and these may lead to degeneration of the brain and nervous system. It used to be supposed that general paralysis was a disease with very definite mental symptoms, but we must all now acknowledge that this fatal progressive disease of the nervous system may begin at any part of the nervous chain, and as a result may exhibit any symptoms, mental, motor or sensory. Disease, disorder or malnutrition of any organ may each have the same symptoms. It is not surprising that the hysterical patient should have the same symptoms as the person suffering from organic disease of the nervous system. The whole body is built up on certain lines and will break down along similar lines of least resistance; and not only will these lines of least resistance be the lines of breakdown but of general instability. So far then, I have given my support to those who think that general paralysis is but a progressive degeneration affecting the nervous system.

Syphilis in one way or another has a distinct power over the nervous tissues, as has been seen by the constancy with which its effects have been traced in the production of certain distinct degenerations of these tissues. We all know the weight which is given to it as a cause of loco-motor ataxy. I shall have a word or two to say on this subject presently. I do not think we are always able to describe the nature of the disease and its special treatment by studying the causation of some of the symptoms. Degeneration is degeneration whatever its cause may be. I shall begin by stating that I find the differences between observers so great when considering the part played by syphilis that I have felt bound to take my own cases and examine them as fairly as I could.

NEGLECT OF OTHERS' OBSERVATIONS AS TO SPECIFIC GENERAL PARALYSIS.

First, I feel confidence in saying that a certain rather large proportion of cases of general paralysis have not only a syphilitic history, but a true syphilitic origin. I can not go so far as some who would say that general paralysis is a syphilitic disease. My first difficulty arose in discovering the number of patients suffering from ordinary nervous disorders who had also suffered from syphilis. I hoped to have been able in some way to compare the two classes. Those with and those without syphilitic histories, suffering similarly. I found that very few, certainly not five per cent, of the ordinary insane male patients in Bethlem had any

history of the disease, while of the general paralytics I found that at least twenty-five per cent had such a history. And the more carefully I was able to go into their histories the more frequently I found syphilis as one of the factors. In many cases I obtained the history of the infection from the patients themselves during periods of remission. I have, however, two or three conclusive arguments against the universal causation of general paralysis by syphilis. Thus at present there is in Bethlem one of twins suffering from general paralysis. His brother also having suffered from the same disease, starting a little before this twin and ending a little before my patient. The two have lived in different parts of the kingdom, and have neither any history of syphilis nor have they any other symptoms of the disease. I had under care two other brothers who at the same age, thirty-two, both became general paralytics, though they had led utterly different lives, one being sober and industrious, while the other was intemperate and licentious. In these and many other cases a tendency to break down prematurely along the nervous lines was part of their inheritance and had nothing to do with any acquired cause of degeneration. Next, I do not know of any means of distinguishing between ordinary general paralytics and those coming of neurotic parentage or developing from syphilitic disease.

GENERAL PARALYSIS FOLLOWING SYPHILIS MAY START EITHER IN BRAIN OR CORD.

I shall have to give cases in which the brain symptoms were first marked, and others in which the symptoms began in the cord, and it will be for you to decide whether you think in some of the latter the disease was wide-spread from the first or whether it was propagated from one to another part of the nervous system. I purpose giving examples of some of the groups of symptoms with which I have met, for though I do not accept any cases as having a right to be called, from their symptoms, syphilitic, yet I have met with certain arrangements of symptoms which may for convenience be studied together.

We have some cases which with histories of syphilis of very long standing have been followed by acute symptoms which have rapidly run their course.

I have two well marked cases which I will give in brief, one a gentleman who some seventeen years before had contracted syphilis, and had been under careful medical treatment by a leading London surgeon. He recovered, and after

long waiting, was considered fit to marry. He married and lived a perfectly healthy life, having no special causes for worry or anxiety. He began, however, though still only a little over forty, to consider himself an old man. He complained of inability to write as he did before. His memory failed and his will power and energy were wanting. It was decided that he should consult some leading physician. This he did and the doctor saw no signs of any danger. Within a fortnight the patient was suffering from all the most marked symptoms of acute general paralysis. He was sleepless, restless, irritable, extravagant, with great tremor of his lips and tongue. The condition of his pupils was difficult to detect, as he was blind of one eye. His handwriting was very shaky. Knee phenomena wanting; in every way, from his greasy skin to his exalted ideas he was a general paralytic, and he died within a few weeks of the outbreak of acute symptoms.

In the next case similar acute symptoms occurred but were arrested.

Joseph T. B., admitted December 31st, 1886; butcher; married; aged forty-five; father at one time melancholic. Had syphilis as a young man and right side choroiditis since 1876. He was said to be sober but this is doubtful. A week before admission he became excited; he was rambling and incoherent, with the most extravagant ideas. Pupils minute, not reacting to light or accommodation. Restless and noisy at night; tongue tremulous; speech hesitant; walk shaky; can't stand with eyes shut; knee reflexes brisk. He refused his food though he talked of the banquet he would give, but he appeared to have no appetite or feeling of necessity for food. He improved up to this point and was discharged uncured at the end of a few months.

GENUINE PROGRESSIVE GENERAL PARALYSIS IN A SYPHILITIC MAN
WITHOUT SIGNS OF LOCAL TROUBLE.

In the next case the syphilis had been acquired many years before, and had not in any way affected the family of the patient. The first symptoms were such as I have frequently seen with syphilitic general paralysis, especially when it occurs in medical men, namely, a consciousness that they were breaking down with some specific intracranial degeneration. I can call to mind two who have in early general paralysis come to me with the same expression that they were "going to die of brain syphilis." This symptom of marked consciousness of failure in bodily and mental vigor was the earliest sign of the disease which within four months

had become well marked general paralysis. In this case there was no sign of any other visceral trouble, and therefore I bring it first under notice, as being one of the cases in which general and not special degeneration seemed present.

William H. E.; married; admitted October 1885; aged forty-two; surgeon; father died insane. He showed signs of mental failure eighteen months before admission, but these were so slight that he followed his profession up to July. He became excited, talkative, with great and constant restlessness. He had very great exaltation of ideas; aspect worn and thin; tongue tremulous; pupils equal but small, reacting; walk firm; writing scratchy; reflexes normal; he was very active, at times destructive; he rubbed his hair off; his writing at first very voluminous, got less and less legible. His face was almost always flushed and over the malar bones, the fine capillary network was very marked. He lost power in flexors of right foot, and this gave him a peculiar gait. Toward the end he refused food; he was fed artificially, but sank and died in May, 1887. Brain wasted; membranes water-logged; convolutions small; general excess of fluid, and no adhesions to cortex; cord wasted; no coarse signs of syphilis in any viscera.

SYPHILIS. NO LOCAL TROUBLES. GENERAL PARALYSIS.

M. T. S.; single; thirty-seven; admitted July, 1883. Mother died of hemiplegia. In childhood had scarlet fever and chronic albuminuria. Had syphilis when about twenty. Two months before admission he became excited and extravagant in his dress; he also was excitable and wandered from home; he got the most extravagant ideas about his powers; great tremor of tongue and lips; hesitation in speech; handwriting shaky; some loss of expression, but his face of florid color; malar capillaries well marked; left pupil larger, both sluggish in reaction; memory fair; patellar reflex very excessive at first, later absent on left side and exaggerated on the other. This patient passed through all the ordinary stages of general paralysis. In 1885 he had some general convulsions; later he had slight ptosis of left eyelid. He had some vomiting, and later he passed several ounces of bright blood from his bladder. He had some swelling of glans and more bleeding. He slowly sank and died October, 1885.

Brain wasted, most marked about frontal region; very great excess of fluid in lateral ventricles, and also in the water-logged membranes. A few adhesions at apex of left ascending frontal

convolution, kidneys with pyelitis, bladder with signs of very acute cystitis. In some other cases I have met a tendency to hemorrhage in syphilitic general paralysis in the course of inflammations in which such an occurrence is not common. Thus in cystitis and in laryngitis.

In the above cases we have seen general paralysis developing in young patients who have had no cranial nerve trouble, and I am used to meet with a good many such cases among the unmarried. And though there is nothing characteristic about these cases, I have noticed that in many there is *a worn aspect with bright capillary stigmata on the malar prominences*, that the reflexes are often very brisk indeed, and that the speech is unusually interfered with. In these cases it is common to meet with great contraction of the lower extremities before the end, and post mortem to find little beyond great wasting of brain and excess of fluid.

In the next group the great similarity of the histories is remarkable. And I shall only need to give one case as an example, though I think I should have no difficulty in providing dozens of similar instances.

The pathology of these cases deserves very careful study. We seem to have a damage done to a brain. This is recovered from, but there is either some weakness left or there is some start given to degeneration which from some cause or another at a later date spreads and finally ends by destroying the patient. As I said when speaking of weakmindedness following local cerebral lesions, the *degeneration may follow either a motor or a sensory lesion*, and I shall submit two cases, in one of which the motor and in the other the sensory loss was the starting point.

SYPHILIS, PTOSIS, INTERNAL STRABISMUS. RECOVERY UNDER TREATMENT,
FOLLOWED BY ONSET OF GENERAL PARALYSIS.

Walter W.; admitted May 12, 1886; married; agent; uncle insane. Had syphilis many years ago. He has recently been under treatment by Mr. Bader for ptosis and external strabismus, and recovered entirely. He remained well for a few months and then became changed in his character; he became irritable and exacting, at the same time was careless in his business affairs. He became sleepless, restless and extravagant a month before his admission into Bethlem. On admission he was a splendidly built man, very restless, constantly writing letters; he had the greatest ideas of his capacity; he played the piano constantly with great vigor; he was irritable.

Tongue clear, fairly steady; pupils unequal, right the larger; reflexes deficient; writing tremulous; speech hesitant. He remained in a restless, excited state for nearly a year, when he gave up writing and became weaker in every way. With this the facial and lingual tremors became more marked; he became self-negligent and at times wet and dirty. His memory failed and he appears to be rapidly passing into a demented stage; his music is now very defective, and his evening rubber at whist very trying to his partners.

SYPHILIS, BLINDNESS, GENERAL PARALYSIS.

Admitted October, 1886; married; thirty-five; twin children aged twelve. Had syphilis when about twenty. No neurotic history; had brain fever as a child; was delirious eight years ago for three or four days; used to be very intemperate, but has been sober for two years. In April, 1885, had a delusion that he was dying, and was depressed for three months; he improved but has a great deal of business worry; in June, 1886, wanted to preach the gospel; he became irritable; took dislike to wife and family, and struck people. Impairment of vision began three years ago, and has steadily increased, so that at present he can hardly detect light from darkness. On admission he was excited and emotional; great tremor of lips and tongue; considerable exaltation of ideas; pupils equal, reacting; gray atrophy of discs; numerous pigmented patches of disseminated choroiditis and pigmentation of retina; vessels much diminished; patellar reflexes brisk; sleep interrupted. This patient has recently had epileptiform fits. Patient died.

In addition to these cases I think it right to record those in which syphilis had occurred years before and has been apparently recovered from, and the earliest mental symptoms, pointing to the onset of general paralysis, were fainting fits or severe attacks of giddiness, or attacks of aphasia of a temporary character.

In one or two cases this aphasia has occurred four, five or even nine years before general paralysis was suspected.

CASE.—SYPHILIS, FAINTING FITS, GENERAL PARALYSIS.

J. M.; admitted June 10, 1887; married; thirty-eight; grandfather died of paralysis; has been sober; had syphilis thirteen years ago. Three of his children suffered from hereditary syphilis and died. He has suffered from a specific rash for some time past, recurring yearly. Two years ago he had some syncopal attacks; he was unconscious, and he had drawling speech after these attacks

for some hours. Six weeks before admission he had another similar loss of consciousness, followed by much more marked loss of memory and of other powers. He failed to do his work right and had to be looked after by his fellow clerks. It seems from the evidence of these clerks that he has failed slightly for nearly two years. A fortnight before admission he became restless, amorous, noisy and extravagant. On admission he was anæmic, restless, given to endless letter writing. He was grand and bountiful. He was irritable, and liable to outbreaks of violence if opposed. Tongue clean, tremulous; pupils small, equal, reacting slightly; reflexes normal; his writing is shaky, and his speech clipped; he is restless, and has every form of exaltation of ideas; is benevolent and emotional. He rapidly passed into a more quiet state though his ideas of grandeur are unchanged.

CASES OF GENERAL PARALYSIS WITH SYPHILITIC HISTORIES IN WHICH THE FIRST OR THE CHIEF SYMPTOMS TO ATTRACT NOTICE WERE SPINAL.

Here we have two distinct groups. Those with ataxic symptoms and those with symptoms of lateral sclerosis.

And here it is well to notice that among our cases we not infrequently meet with mixed cases, such as have normal or exaggerated reflexes on one side and absence of reflexes on the other. (I here refer to the knee phenomenon.) In the case of M. T. S. we have one in which the reflexes differed on the two sides of the body. In reference to these cases I must say that the greater number of the young cases of syphilis with general paralysis, to whom I have referred above, were suffering with marked exaggeration of all the reflexes, and in these cases the speech was early and markedly affected and the gait was also of the spastic type. The tendency was early to get feebleness, and later the muscles wasted, the patient became bed-ridden, dying often with large bed sores and greatly contracted limbs. In these cases I failed to find any unusual post mortem signs, though as I have said the brain was much wasted, the adhesions were few, and the lateral ventricles filled with fluid, while secondary degeneration was seen in Turck's columns as well as in the lateral columns.

SYPHILIS, BRISK REFLEXES, GENERAL PARALYSIS.

Alfred E.; admitted January, 1887; single; twenty-seven; no neurosis in family; tailor; sober; had syphilis a few years ago; at present has rupial sores. He had rheumatic fever two years

ago, but his heart is healthy. He has had fainting fits since. He had convulsions in infancy; recently he has had chorea and was in a general hospital for six weeks; he became odd and his memory was weak; he became irritable and depressed alternately. He then became maniacal and had to be brought to Bethlem. On admission he was very excitable and very confused; he did not in the least appreciate his position or his state. He had hallucinations of sight—saw rats—also of hearing; fancying his employer whistled to him; he fancied his food was poisoned, and he talked about bad smells. There was slight divergence of eyes, some swelling and pallor of discs and neuritis; pupils equal, reacting; knee phenomenon brisk; there was great tremor of tongue, and speech was markedly affected. There was loss of expression and some greasiness of skin. He had extravagant ideas and wrote many letters, which showed change in handwriting. He was treated with mercuric chloride and potassium iodide, but for a time was more stupid than excited. He was both wet and dirty. In March he tried to kill himself, and was very emotional. He gradually roused up and became fat. Dr. Lawford again examined his eyes and said the vessels were diminished in size, and that other appearances indicated neuro-retinitis and hyalitis. He had some herpes frontalis, and at the same time some sub-conjunctival hemorrhage. He recovered sufficiently to go out on leave, but I consider this but another evidence of the specific origin of the disease.

I have seen many cases of ataxy with and without general paralysis. In one the patient was not discovered to have locomotor ataxy till after he had been sent to Bethlem suffering from melancholia with delusions that he would be hanged. It was found that he had been for a year or more behaving in a very excited way, and that his passions had, as is so often the case with these cases, been beyond his control. He was noticed to be peculiar in his gait. He had pains in his limbs which were considered to be rheumatic. The symptoms of ataxy were well marked, and though he managed to get his discharge from the asylum, I fear the result will be sad. In any case his is one of the interesting examples of ataxy which connects the three groups: (a) the simple ataxic with specific history and delusion; (b) the specific general paralysis with ataxic symptoms, and (c) cases of specific history with ataxic symptoms beginning years before any signs of general paralysis are to be detected.

In the other two cases the syphilis was recognized and treated

years before the ataxic symptoms showed themselves, and these latter lasted some years before the confirmed general paralysis developed.

The chief point of interest being, as I said before, whether the symptoms are produced by a general lesion working its way at a different rate, or whether there is a true propagation of the disease from one part to another.

CASE.—SYPHILIS. STRONG HEREDITARY TAINT, LOSS OF FORTUNE, LOCOMOTOR ATAXY, INSANITY, TEMPORARY IMPROVEMENT.

James S. C.; married; forty-two; admitted March, 1884; father eccentric; brother insane. Had lived a great deal within the tropics; had been doubtfully sober. Had a sore on his penis when about twenty-one; this was cauterized, but for some time was unhealed. Had very slight secondary symptoms. He became insane three months before admission; he believed he had leprosy; he accused himself of all sorts of crimes. He had been very lascivious of late. He believed he was the subject of a plot, and that some one was going to poison his wife, and that he would be accused. He was very wretched and full of contrition for the past. He developed the idea that he was in the power of the devil. His gait was slightly ataxic; he had pains in his legs and some swelling about both ankle joints. Several bullæ appeared about his feet and cutis anserina was very marked. Patella reflexes both absent. Pupils small, reacting to accommodation, but not to light; some slight changes in right optic disc, the outline of which was indistinct and the disc rather opaque; retinal veins tortuous. For fifteen months the patient was every day coining some new fancy to interpret his uneasy feelings, but his general health improved and at times he was more cheerful. He was discharged uncured and transferred to another asylum. He was discharged from this as recovered, and proceeded to take legal action against his wife to recover some of his property. His mental balance was not really restored, but he was fit to be at large. The ataxic symptoms are less, and he is hopeful that nitrate of silver treatment will restore him.

In the above case we have the common history of syphilis, small secondary trouble, and after many years associated with worry, locomotor ataxy developing the insane tendency, giving insane interpretation to the symptoms.

CASE.—SYPHILIS. HISTORY OF PARALYSIS IN THE FAMILY, LOCOMOTOR ATAXY, GENERAL PARALYSIS.

Frank B. F.; single; thirty-one; clerk; admitted February, 1887; grandfather died of paralysis; he contracted syphilis twelve years ago. He had been carefully treated and had suffered from secondary troubles. He had been treated at Aachen. He had complained of pains in his legs for some time past. A few years ago had a severe fall on to his back. For a year or more he had been very irritable, and at times not fit for his work, but for a few months before his present breakdown he was very remarkably bright and clear-headed. About six weeks before admission he became sleepless, excited, and developed very grand ideas; he chattered and was hilarious; his appetite became very ravenous, and he ate whatever came in his way. He believed he was very strong, notwithstanding his constant falls. He said he knew one side of his head was mad. On admission his gait was very ataxic; he had retention of urine; bowels confined; left pupil larger, both react to accommodation, but not to light; he had double vision; knee reflexes absent.

This patient rallied a great deal, but all the time he was under observation he was ravenous, extravagant and boastful, while he steadily lost power.

In the above case syphilis, locomotor ataxy and general paralysis form the sequence.

SYPHILIS LOCOMOTOR ATAXY. GENERAL PARALYSIS OF THE INSANE.

Alfred S.; single; forty-five; admitted April 16, 1887. No neurotic history. Contracted syphilis sixteen years ago; no serious secondary troubles. About six years ago locomotor ataxy developed and was treated by Dr. Althaus. Symptoms of mental disorder have only shown themselves during the past week. He had been exposed to wet and cold a good deal of late. He became excitable and irritable; he was sleepless and noisy at night. He wrote endless letters, tore up books, he was going to reform the world, to suppress the House of Commons, and blow up every one with dynamite. He has had hallucinations of hearing for a month and shooting pains in his legs. He had frequent erections and emissions; pupils at times equal, small, at others, the left larger. Six years ago he had convergence and diplopia, which was cured by use of mercury; general and color vision normal; pupils reacting both to light and to accommodation; patella reflexes

absent; walk ataxic. This patient on admission had all the most marked symptoms of ataxy and of general paralysis of the insane, and no treatment seems in any way to affect him.

Before proceeding to consider in brief the pathology of these syphilitic changes, I wish to call attention to the subject of the course run by cases having their origin in syphilis. It is a generally accepted dogma, that whether the general paralysis be due to syphilis or to any other source, it is a matter of almost indifference and that though when you hear the case is a specific one you order mercury or the iodides as your fancy leads you. Yet you have no hope. I agree with the general principle that whatever has caused the degeneration matters little if it is certainly started; but yet I think I have some grounds for hoping that in specific cases cure may from time to time occur, and that at any rate remissions of unusual length may often be expected. I recall the only case of general paralysis that I ever saw which apparently recovered from and in that case one symptom—cranial nerve paralysis—pointed to syphilis, though there was no other proof of the disease to be obtained. The man got well and remained well for years, but died of obscure nervous disease, which was certainly looked upon as specific by the eminent neurologist who attended him. In another case with specific history prolonged remission has occurred, and it is noteworthy that in both these cases excessive suppuration was the immediate cause of relief. In a case, the particulars of which I submit, the recovery has been so far remarkable and the patient who was undoubtedly suffering from early general paralysis, seems to have recovered sufficiently to be trusted as second in command of a ship. In another case the symptoms which were of weakness and depression but unmistakably those of general paralysis, passed off, and allowed the clergyman to perform his duties perfectly for some months before he again broke down. I do not for one moment claim anything special for cases of general paralysis with syphilis, but I think I ought to take note of any facts which have struck me in their history.

SYPHILITIC GENERAL PARALYSIS; REMISSION CURE.

William H. S. Mac. Admitted July 6, 1885; male; thirty-four; married; no children; father insane; mother phthisis; no injuries; syphilis; first symptom of first attack twelve months; change in temper to wife five months ago; depressed; then he got a command; this excited him; next he became very anxious; then disagreeable and dogmatic; fancied all were against him, and wanted

to wander away; next fancied he had a mission to relieve the poor; next extravagance; purchases things recklessly; very variable. Red colors irritated him, while white soothed. Wealth. Musician. Great. Left pupil >, both small, Ref. +. Excitable and pleasant till July 21, then morose; rapidly got worse. July 23, better again. July 28, alternating. August 9, some exaltation, and given to masturbation; thought he could kill people by looking at them. Very destructive. Getting thinner. November 20, pot. iod. gr. v. t. d. Smeared faces about room. December 10, very variable; tremors of lips and tongue; pupils unequal. Ref. +. Getting stout. 1886, more quiet. March, leave of absence. March 31, appears well. April, still on leave; tremors and twitching about legs; sleeps too much; change in temper; now docile and mild; acknowledges mental attack. Discharged "well," June, 1886. May 9, 1887, hear he is chief officer on board ship in the East.

GENERAL PATHOLOGY OF INSANITY, WITH ASSOCIATED SYPHILIS.

First I recognize a moral element. It is not at all uncommon to see the worry of the disease set up melancholia. And it is quite easily to be understood how the fear of propagating a disease to offspring may modify the life of the individual, and I have seen several conscientious men refraining from marriage on account of an attack of syphilis, pass into hypochondriasis.

Next the fact of having given a wife or children syphilis may be enough to destroy rest and produce nervous exhaustion, and I here wish to record one case in which general paralysis occurred in a man who had had no signs of local intracranial disease, but who had suffered terribly from the distress caused by the infection of his wife.

Next I have to note that several cases have been admitted suffering from a most cachectic state, with rupial sores and general anæmia, as the result of syphilis, and in these I feel inclined to think the mental aspect which was generally melancholic, was chiefly due to the bad state of nutrition of the nervous system. Besides this there is a wide-spread idea that in syphilis there may be general vascular changes, which may interfere with the general and special nutrition, and that in such cases the nervous system which needs such constant supplies of fresh, healthy blood, suffers early and seriously. In support of this I have referred to certain cases in which capillary stigmata were present on the face. I have referred to this elsewhere, and shall

be glad to hear if it is a fact or only a fancy begotten by a few coincidences. In many cases I could record the marked changes present in the vascular system, and though simple atheroma is not more frequent in cases of general paralysis with syphilis than others, yet it is often found.

SYPHILIS COMMUNICATED TO WIFE, GREAT WORRY, GENERAL PARALYSIS.

William B. J. Married; thirty-six; photographer; admitted February, 1886. No neurotic history. First attack. He contracted syphilis before marriage; had but slight secondary symptoms, and married two years later. His wife had no children, but developed secondary syphilis in a very marked way, and has for years been a martyr to all sorts of troubles due to this disease. She is now suffering from syphilitic laryngitis. The patient has had no symptoms of cranial nerve paralysis, but has been greatly distressed by his wife's sufferings and also by business worries.

Eighteen months before admission he began to lose his memory. He had severe headache four months before admission. He had hallucinations of sight. Right pupil larger. Walk feeble, tottering; knee reflexes brisk. On admission he was suffering from confusion and weak mind. He was restless, incoherent, pupils unequal, skin greasy, labial tremors and twitchings, great physical weakness, loss of vesical control. Some exaltation noticed in his incoherent babble. Optic discs hazy, probably due to old syphilitic retinitis. He was ordered *potassae iodi*. gr. x. He had cystitis and once hemorrhage from urethra. A hæmotoma occurred in right ear. After a year he was discharged uncured.

I do not think that I can too often repeat that I do not find anything special in these cases, which would not have been found in any other cases of general paralysis. I do not find any specific overgrowth of fibrous tissues, either about the vessels or elsewhere. Next as to gummata, I can only say that though in Bethlem we have a fair opportunity of making post mortem examinations, I can hardly recall a single case in which there was to be found a gumma to account for the symptoms. I have often diagnosed them, but have not found them. It seems to me that the changes such as ptosis and external strabismus, which we so frequently meet with, are not so commonly the result of coarse changes as we were led to expect. My own opinion is that in many of these cases local causes of interference with nutrition arose and were much more easily removed than would be a solid growth like a gumma. In fact, I feel that the rapidity of the

cure of those cases is against their being due to gummata. Next as to the general results of these local changes, whether they be in the vessel walls or not, there appears to be a local interference with nutrition which may be recovered from, but which is rarely cured without a scar, and this scar may be the starting-point of degeneration. In nearly every case in which we have general paralysis following on these local troubles we have some other active cause for the breakdown; thus, overwork, worry, sleepless anxiety, drink, injury, or excess; and there is one other factor deserving, nay demanding notice, hereditary predisposition to neuroses. In these cases, the weak point is the nervous system; and here we get the first evidence of the general degenerative changes. I cannot go so far as some have to say that with heredity you are almost always sure to find syphilis selecting the nervous tissues.

I believe in most cases there has been some vascular and tissue change in the nervous system, and that this may be quite general, and that the selective nature of the disease affects certain parts more than others; and that, though recovered from, there is either vascular weakness or there is some exudation material which is not perfectly absorbed, which will under some conditions, begin to act as a fresh cause of irritation, and in some cases may set up a rapid change which runs its course in a few weeks; while in other cases the process is slow in the extreme, if we are to consider it as allied to inflammation. I cannot believe that a poison is locked up for so long—ten, fifteen, twenty, or even thirty years—and then in the shape of bacilli invades the tissues.

Once more I would suggest that in some cases the treatment may have something to do with the symptoms. I have been struck by the number of cases who have been thoroughly well treated with mercury, who have become general paralytics, and in so many of these cases there was very great tremor, in some cases recalling mercurial tremor. I have no proof of this, but I have grave suspicions, especially when I have found so many victims among medical men who have kept themselves for years on mercury. As to the general pathology of these cases, I can only repeat that it is that of general paralysis generally.

CLASSIFICATION OF MENTAL DISEASES.

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Nearly all of the more modern writers upon systematic medicine have made large use of ætiological classifications, and I think we may anticipate that in the future, as our knowledge in this department of disease becomes more definite and extended, this course of procedure will be carried out still more largely than in the past.

In the field of psychiatry, Morel and Schroeder Van der Kolk were the first to introduce and advocate the ætiological system of classification. Van der Kolk, however, thought that the terms mania, monomania, dementia and idiotism should still be retained in use as they serve to distinguish better than other names the different forms; but he regarded such a division as decidedly objectionable, because it was based on symptoms which are changeable rather than upon causes and origin of disease. He adopted two principal groups or genera, which he designated as idiopathic and sympathetic. The first indicated those cases in which the cause existed in the brain, and the second those in which the cause exists in other portions of the body, especially the abdomen and sexual organs.

The first genus A, included,

1. Acute idiopathic mania.
2. Chronic idiopathic mania.
3. Obtuseness.
4. Dementia and Idiotism.

The second genus B, included,

1. Sympathetic mania from disease of the colon.
2. Sympathetic mania from disease of the sexual organs.
3. Sympathetic mania from chest affections.
4. Sympathetic mania *Erethica senilis*.
5. Intermittent mania.

In the forms of sympathetic insanity there might exist at times a condition of mania, and at others of melancholia; a condition of excitement or depression.

Among English writers, Skae, though perhaps not the first to suggest, yet appears to have been the first to adopt, strongly advocate, and defend the system of ætiological classifications.

He also enlarged what had been done by Van der Kolk, by the addition of several species or forms of insanity. This number, since his day, has been considerably increased by his pupils Clouston, Sibbald, J. Batty Tuke, and others, and has been largely adopted by those authors who have written systematic works on insanity within the past few years. That it is over likely to wholly supersede Esquirol's nomenclature and orders, I think its most sanguine advocates hesitate to claim. It certainly is not likely to do so until our means of investigating the nature of those changes which occur during the processes of thought, while the brain is in a state of health, have become more efficient than at the present time; nor until the nature of simple derangement of mental activities is better understood.

Our study of classification leads into two divisions of the subject, namely, Nomenclature and Arrangement. Some remarks on these branches of our subject will now be in order.

I. *Nomenclature*.—The selection of names for the different forms of disease affecting the several organs of the body, appears to have been in some cases almost accidental, and without any purpose of a description of either its nature or the character of its symptoms. In other cases it has been founded upon the most superficial and easily recognized symptoms. In other cases still, it has been from the character of the pathological changes which are known to occur during its progress; or which are supposed to constitute its nature. And, finally, from the character of its causation, and the name of the organ, or of the part affected. As examples of these several courses of procedure may be mentioned—

1. The plague, Addison's disease, Basedow's disease, Graves' disease.
2. Apoplexy, yellow fever, scarlet fever, irritative fever, rubeola.
3. Bronchitis, neuralgia, pneumonitis, bronchorrhagia, tuberculosis.
4. Malarial fever, heat stroke, bilious fever, etc.

These few examples, selected at random, are sufficient to illustrate the statement as to the confused method, if it can in any sense be called a method, made use of especially in the earlier nomenclature of disease in general. This lack of method or system has, perhaps, been unavoidable, as it has been desirable to furnish names to forms of disease in many cases in their earliest history, and before much was understood about them, except their

most superficial indications, and when little was thought of in regard to consistency, or plan of nomenclature; while in more recent times names have been selected having relation to both pathology and ætiology. This lack of system by early writers is of comparatively little importance, and not especially to be regretted except in those cases in which the name is false, or conveys a wrong idea as to either the symptoms, character, pathology or ætiology of the disease. In nearly all the above examples, comprising the last three classes, we have seen that the names do have reference to some one of the characters of the disease, and in many it indicates not only the character of the disease but also the organ affected, both in a single word; and in others still, it gives the cause as well as the nature and the organ affected.

Now in one view of the subject it may be admitted that a name is not of vital importance, as it becomes essential that the character of the disordered activity which constitutes that sought to be named, must be studied and comprehended by the student before he obtains that information which is to be of service to him in his future relations to it; and if the name is merely an arbitrary one, we may grant the claim; but if this is not the case, and the name has been applied under a mistaken idea as to the nature of the disease, or actually conveys a wrong idea as to the character of its manifestations, then it certainly becomes a matter of importance, and may be enough so to warrant the changing of the name, even after years of use. For instance, if in yellow fever, it were found that those affected with it did not become tinged with that color any more than when in a state of health, or when affected with some other form of disease, it would appear to be absurd to continue the name at present in use; if, in irritative fever, there had been found, after more comprehensive study of the disease, that there existed no larger amount of irritation than in other forms of fever, or in other disordered conditions of the system, can we doubt that subsequent writers would modify or change the name, especially as these terms would then be misnomers, and convey wrong impressions?

Examination then indicates that modern authors especially have been guided in the nomenclature of disease very largely by its relation to symptomatology, pathology, ætiology, and the organ which may be its seat; and further, that in so far as practicable, they have sought to combine these several elements of the disease into the name, and thus convey an idea as to the nature of the disease sought to be named. And further, that so far as the

nature of the pathology and ætiology of disease have been understood when the disease has been christened, has the name been selected, not from the mere superficial indications of symptoms which have been the first to be observed and studied, but from the more permanent elements of either physiology, pathology or ætiology.

With these principles of the nomenclature of disease in general in mind, I desire now to refer to two or three in use in the nomenclature of mental diseases. And first those which have been in use from its earliest history, which Esquirol applied in his classification, viz.: mania, melancholia and dementia. The criticism of these terms by Van der Kolk, as applicable to orders or genera of insanity, viz.: that they indicate merely symptoms of disease and not any essential or permanent element of character belonging to it, is as pertinent at the present time as it was then, and it has been repeated by many writers since his day. Indeed, Skae endeavored to abolish their use altogether as names of forms of disease, thus following in a general way in the footsteps of writers upon systematic medicine. But it has been shown that this has not been done in all cases by these authors, and that symptomalogical nomenclature is still retained to some extent. Writers on mental disease, therefore, do not essentially differ from writers on other forms of disease in this respect, when they retain these terms to designate genera of insanity. Besides pathological research has hitherto failed to demonstrate the nature of those changes which occur either in the texture of the physiological activities of the brain, and which are the basis of either mania, melancholia or secondary dementia; and we are consequently in the dark to the present time, beyond the merest conjecture, as to the nature of the pathological basis of these morbid symptoms. Reasoning from analogy and from our knowledge of physiological activities in general we are confident that this basis is a disordered condition of certain elements of the brain structure; but until we understand more fully than at the present time in what this consists, we are as helpless as Esquirol was, when we attempt to attach any name to it which shall indicate its character. In his use of the terms he pursued a course exactly similar to that taken by writers on other forms of disease; he applied the name of the most patent and essential external manifestations of these genera in each of the cases. The only other course open to him was the selection of a name entirely neutral or arbitrary in character which would have been still more objectionable. So long as the terms

yellow fever, scarlet fever, irritative fever, are in use by authors, writers on insanity need not be sensitive as to the use of mania melancholia and dementia; and until we understand some ætiological and pathological equivalent for them, we perceive no way in which they can be superseded as applied to genera of insanity.

A few words in reference to the use of the term monomania. Esquirol introduced this term to designate a species, rather than a genus of mental disease. It would appear that at first he thought there was a special form in which the disordered manifestations relate to one or a few subjects only; or in which a single faculty of the mind might be deranged. His writings on the subject, however, indicate, that while at times he used it in this restricted application, at others he employed it with a wider signification, and in such a manner as to cover a considerable variety of disordered mental activities, especially certain phases of chronic mania. However this may be, since the idea of partitions and divisions of the mind, one or two of which could be disordered, while all the others remained in a state of health, has passed away, it has been applied to designate a special genus of insanity, which is essentially chronic in character, and which sooner or later exhibits derangements in many directions. It should be said that some of the features and characters of this genus of insanity have been brought to light, studied, and more fully differentiated by those who have succeeded Esquirol, and that these additional elements of the disease have only served to indicate more clearly objections to the use of this term monomania. I think there can be no question that they demonstrate that it is neither single in its elements, nor maniacal in its manifestations, and that the term monomania is, therefore, untrue in both its primal and terminal composition, and thus violates all principles of medical nomenclature.

Whatever of excitement may exist in that genus of insanity to which it has been applied, is certainly very different in its character from that existing in mania. In the latter form of disease the leading feature is lesion of the inhibitory centres of thought, and consequently there results an increase in the flow of words, with more or less of excitement beyond what exists in a state of health; while in the former, an opposite condition of mind exists. The thought is consecutive, and opinions may be correct, and frequently would be, if the premises assumed to exist actually did exist. The person does not become excited, nor does he become convinced when the fallacy of his reasoning is shown; but on the

contrary he remains calm and unmoved in the face of the plainest exhibition of his folly, thus showing how profoundly his whole mental constitution is involved. Nor again does he become depressed and melancholy, when day after day passes, and he finds that his desires or plans to affect his wishes fail. He tells of his persecutions and the machinations of his supposed enemies with very little exhibition of feeling, or any deep apprehension as to the effects which are likely to ensue. It need not be said that all this is radically different from the depression of a melancholiac, or the excitement of a maniac. The term, therefore, expresses a false character in the latter element of its composition as well as in the primal one, and in consequence has served to convey both to the laity and the profession incorrect ideas as to the nature of the disorder to which it is attached. If, however, it should be applied only, as it now is by some writers, to that form of mania which is sometimes sequential to its active form, and in which one or a few ideas of an exalted character are more especially the theme of expression, the terminal portion would be more applicable.

There is another term, which though suggested and used to a limited degree by two or three writers abroad, yet has more recently been introduced to the nomenclature of mental diseases in America. I refer to Paranoia. By some writers this has been used as a substitute for the monomania of Esquirol, and by others for the broader *Primaere Verruecktheit* of the Germans. It is certainly difficult to understand on what principles of nomenclature this term can be applied to any genus of insanity. If the purpose was to substitute a Greek word for one derived from the Latin, and by its use avoid the term insanity altogether as the name and order of disease, all would be plain enough, but no such purpose exists. We have the term insanity as descriptive of a class or order of disease, and we are now seeking a name for a particular genus of that order, and it becomes obvious at once that a name which comprehends all that is understood by the name of the class or order under which it is to be arranged, will convey not only no accurate idea as to what is named, but is eminently misleading. It certainly has relations neither with a symptomalogical, pathological, physiological, or ætiological basis of nomenclature, nor has it even the merit of a neutral character, as is the case when forms of disease are named after the discoverers, as Graves' disease, Addison's disease, etc., in a classification of disease, and translated into English, it would read as follows:

ORDER A.—INSANITY. { Genus 1.—Mania.
Genus 2.—Melancholia.
Genus 3.—Insanity.

This would be as scientifically accurate as for a naturalist when classifying any order of birds—say that of ducks, geese, etc., to proceed as follows :

GENUS A.—DUCKS,.. { Species 1.—Mallards.
Species 2.—Teals.
Species 3.—Wood Ducks.
Species 4.—Ducks.

Or, if again, in classifying the orders of fish, he should select that of eels, and proceed as follows :

ORDER A.—EELS,... { Genus 1.—Common Eels.
Genus 2.—Electrical Eels.
Genus 3.—Roman Eels.
Genus 4.—Eels.

I think that it may fairly be assumed that the wealth of terms which could be derived from the Greek, Latin and English languages, when conjoined with the symptoms, pathology or ætiology of any order or genus of disease which has become sufficiently understood to be differentiated and described, will suffice to provide some name which may in a measure indicate its character.

Instead of the term monomania, for reasons already presented I would suggest another. And as the form of disease is one without well determined lesions of the brain, and whose proximal ætiology is not well understood, we are led to the character of the symptoms for its nomenclature. Delusions, or a series of combined delusions, restricted for the time being, in character and range of subjects, sometimes attended with hallucinations, and at others not so, appear to constitute the primordial element of the disease. These delusions are peculiar as to their mode of origin. They are not the sequence or residua of former attacks of systematized insanity, such as mania or melancholia, nor do they arise in connection with such attacks, nor in consequence of any morbid habits of psychological processes, which have existed in the former history of the individual. In other words they are neither concomitants of, nor secondary to other conditions of either excitement or depression. They arise, therefore, as primary elements of the disorder they characterize, I would therefore suggest the term primary delusional insanity for this form of disease.

II. *Arrangement.*—The other division of our subject relates to the grouping or arrangement of the several orders, genera and species of insanity. The different systems devised and elaborated by authors have been almost as numerous as the authors, and have ranged from the simplest to the most complicated. Every one has felt apparently, under some obligation to differ in some respects from his predecessors in the specialty, and that the fact of this difference was in itself a good *raison d'être* for his book. If, however, the principles of classification in general, which have been referred to as guides in the nomenclature of the several forms, are correct, and can be of service in the arrangement of genera and species of insanity, certain other considerations which have been by some regarded as of importance may be dispensed with without much detriment.

First. The question as to whether a species of disease is *curable* or *incurable* will not be regarded as legitimate in forming any arrangement of groupings. The element of curability is very indefinite and uncertain in many cases, and involves a question which can not be determined until after a long experience of treatment, and in some cases recovery may occur long after the result has been regarded as improbable. Krafft-Ebing, while making use of “curable” and “incurable” states as a basis in parts of his classification, places *Primaere Verruecktheit* among the incurable forms, and yet in his monograph on this genus he admits that recoveries sometimes occur in persons affected with this form of insanity. I am unaware that any such principle of classification is ever made use of in studying and arranging groups of disease in general.

Nor shall we regard the question, whether the disease is of such a character that a person who has once been affected by it is liable or likely to be so again, as of sufficient importance to serve as a basis of arrangement, unless there may have become established a neurosis, which may serve as an ætiological basis for such a recurrence. In very many cases the question of recurrence will depend more largely upon the peculiarities of the individual in the way of inheritance, manner of life, character of vocation, ability to avoid exciting causes, etc., than upon the character of the disease itself.

Nor, again, will the question as to the relative numbers of cases which may be found in an order or genus, nor any system of balancing of these numbers so as to form a harmonious and symmetrical arrangement of the different forms, require atten-

tion. It does not appear how the matter of numbers, whether we find one or one hundred cases of any form of disease in passing through the wards of a hospital, can possibly affect our inquiry as to the nature of the disease itself, or determine the genera under which it should be tabulated. An order may embrace one-third or nine-tenths of all genera and species of cases and yet be founded on the only scientific basis practicable. The clinical unity, which is to be sought for, should come from such an arrangement of the several orders and genera, as will depend upon the most essential causes and characters of the disease. But upon whatever road we proceed we shall meet with obstacles, which arise from various sources. One of the principal difficulties in arranging the different genera and species arises from the fact that upon whatever basis of selection we proceed, there appear close affiliations and similarities of character. This is equally true in relation to the symptomology, pathology, and ætiology of some of the genera; and the importance of these similarities will vary greatly in the minds of different authors, leading consequently to groupings according to the standpoint of the author. To one writer the character of a symptom such as excitement or depression, or a diminution of mental function, will appear to be of sufficient importance to lead to a different grouping of certain genera or species, while with another, these changing conditions, will be regarded as of less importance, and he will seek for a more permanent basis in some essential character.

Again, when even these more permanent elements of character, such as pathology and ætiology, are selected to form the basis of groups, it will be found that the same genus may present a character, or arise from such causes as would lead to its location in either one of two or more groups. For instance senile insanity will be regarded by one writer as simply a species of the genus Dementia, and be arranged with the other dementiæ such as Primary, Secondary, without regard to the ætiology or pathology; while another will choose to regard it as genus of the special order of Epochal Insanities, which will sometimes present symptoms of excitement, at other times of depression, and at others still of dementia, but all of which have the basis of their origin in the physiological condition of a senile brain. One writer, regarding syphilitic insanity from the character of the degenerative changes which occur sooner or later in the nervous system of the patient, will arrange it with general paralysis in a group of pathological insanities, while another, regarding it from an ætiological point of view, will arrange it with the group of Toxic Insanities.

Again, the relative importance of the several ætiological factors which may enter into the consideration of any order or genus of insanity may vary largely with different authors. In the ideal classification presented by Dr. Savage in his recent volume on insanity, it will be observed, that he regards the physiological epochs of life as of prime importance and would make them the principal basis of his arrangement. By this method he relegates the proximal causes of genera and species to a secondary position, and introduces the same nomenclature for several species, while others regard these physiological epochs of less importance, as a basis of classification, and group the genera of insanity which arise in connection with them under one order only.

Limitation in the consideration of any genus of insanity, may lead to locating it in a relatively different position, or in a different order from that to which it would be assigned if studied under a wider signification. By this procedure syphilitic insanity may be limited to one species and regarded as a dementia, depending upon and arising from the pathological changes represented by the development of gummatous tumors of the substance of the brain, an infiltration of the membranes, with syphalomatous degenerations of the brain arteries. If limited to this treatment it would be proper to regard and classify it with the pathological insanities. But if it be regarded as a genus, and as presenting a wider range of psychological characters and comprising several species, some of which are not attended with the same characters of pathological change as has been enumerated above, but which are dependent upon and arise from syphilitic infection, then it would be more appropriate to arrange it with the toxic insanities. In the same manner if alcoholic insanity be limited to that one phase of it, which has finally eventuated from a fully developed alcoholic neurosis, and is dependent upon changes in the brain which have become chronic, then it may be arranged as one of the neuropathic insanities. But if it be regarded also as presenting an acute and a sub-chronic variety, both of which are attended with symptoms and conditions more or less peculiar to them, and are dependent more especially upon the acute and sub-acute effects of alcohol upon the nervous system, then it also would more properly be tabulated with the toxic insanities.

In fact the arguments for and against almost any combination and grouping of the several genera of insanity, may be so numerous that it is quite impossible to arrange any system which

will not present objections to some mind; and it is very certain that when so many writers of the highest eminence have failed to agree upon what is the most desirable, the subject is attended with difficulties which are quite insurmountable in the present state of our knowledge.

Our conclusion, therefore, is that for the present, and until we discover such means and appliances, as shall enable us to determine more fully the nature of the normal physiological activity of that portion of the brain whose function is connected with the thought-process, and until we can appreciate more fully and perfectly those pathological changes upon which mental derangement is supposed to depend, all our classifications of insanity must be regarded as merely tentative. It is, therefore, with hesitation that I venture to suggest the following nomenclature and arrangement.

TABLE OF NOMENCLATURE AND ARRANGEMENT OF MENTAL DISEASE.

A SYMPTOMALOGICAL.

1. Melancholia.
2. Mania.
3. Folie Circulaire.
4. Dementia.
5. Primary Delusional Insanity.

B ÆTIOLOGICAL.

- | | | |
|------------------|---|--|
| 1. | { | Insanity of Puberty. |
| EPOCHAL, | | Climacteric Insanity. |
| (PHYSIOLOGICAL.) | | Senile Insanity. |
| 2. | { | Puerperal Insanity. |
| SYMPATHETIC. | | Masturbatic Insanity. |
| (SEXUAL.) | | Ovarian Insanity. |
| 3. | { | Alcoholic Insanity. |
| TOXIC. | | Syphilitic Insanity. |
| 4. | { | Epileptic Insanity. |
| NEUROPATHIC. | | Hysterical Insanity. |
| | | Choreic Insanity. |
| 5. | { | General Paralysis. |
| PATHOLOGICAL. | | Insanity from coarse brain disease. |
| | | Traumatic Insanity. |
| | | Acute Delirium (Typhomania). |
| 6. | { | Phthisical Insanity. Rheumatic Insanity. |
| OTHER LESS | | Gouty Insanity. Pellagrous Insanity. |
| FREQUENT GENERA | | Post febrile Insanity. |
| AND SPECIES. | | |

AN INTERNATIONAL CLASSIFICATION OF MENTAL DISEASES.

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The tendency of the human mind in general, and perhaps of the American mind in particular, is to arrange and systematize many kinds of facts or data in groups, families, or classes, so that they may fall into their proper and definite places, and henceforth be of service as known factors, the full value of which has been ascertained once and for all.

In all branches of science we have seen this tendency, and have furthermore often seen the fulfilment of such a purpose. Agassiz for instance in natural history, has shown what may be done by arranging and classifying the different kinds of fishes beginning with the earliest fossil forms. This was a work of extreme intricacy and delicacy, requiring a master-mind to unravel its secrets. The data to be classified however, when once recognized, were of a fixed, unalterable character never to be changed, if correctly ascertained, to the end of time.

A precisely similar theory was in early times applied to medical diseases. These also were supposed to have a fixedness of type which made them readily fall into a nosological system. Hence arose complicated, elaborate and theoretical nosologies, excellent in their way, provided they represented data of unimpeachable accuracy, otherwise worse than useless for succeeding generations, from their complicated character and theoretical ground-work. The actual knowledge of physical processes was unfortunately in these early times, in inverse ratio to the involved system of nosology.

As these processes have, step by step, become unfolded by careful scientific investigation, we find the total number of proven facts immensely augmented. We are embarrassed by their number and variety, yet we are unable to satisfactorily classify them. They can not be made by any possibility to fit into old nosologies, which are now only of interest from the light they throw on the past history of medicine. Neither can we place them together into a perfect system for present use. If we have learned anything from the discoveries of modern science, it is that medicine is not, as yet, a fixed science; not from the inexact character of physical

phenomena, but from our limited power of interpretation of these phenomena.

In the study of natural laws as applied to man, the splendid progress of the present century is demonstrated by the certainty that we are on the right road to further knowledge, but with this feeling comes one also of skepticism. Whereas a century ago we were satisfied with crude theories, to-day we can accept nothing unless proved by actual demonstration. While we appreciate the need of applying a correct name to each form of disease, and arranging all diseases together in a comprehensive system, there is little possibility that this will be done further than to place certain well-recognized varieties apart by themselves under general headings as appropriate as our present knowledge warrants.

What is true of diseases in general, may be said to be especially true of mental diseases. So far these diseases have defied all efforts at a satisfactory classification, in spite of the intelligent and persistent efforts made by the writers of the present century. Exposed to careful criticism, each system has proved either inaccurate, insufficient, or too complex. No wonder that such has been the case, when we remember how little real knowledge we have had on the subject of cerebral action. The psychological or speculative side of mental manifestations first attracted notice, and from this point of view the most fanciful and impossible of classifications were elaborated. Some of these were of value from the insight they imparted into the recognized moral qualities of the mind, otherwise they could not be put to practical use.

As we look back upon the history of psychological medicine, we can readily see that we could expect nothing more than this. The demonstrative period in medicine had not arrived: theory, speculation, mysticism, were resorted to to explain simple physical processes, even then easily demonstrable. The prevailing ignorance of actual conditions was exaggerated, when directed toward mental operations. The mind was an unknown quantity, shrouded in darkness, and subject to the misinterpretation of ignorance and superstition. It was natural that the moral, emotional, spiritual elements of the mind should receive the most profound study, and hence arose many distorted ideas of mental action, which from the earliest period down to the present day, have embarrassed the consideration of morbid mental action. The idea that insanity was equivalent to demoniacal possession for instance, has steadily influenced its treatment from the first, and though we may now laugh at it, we cannot deny that many

persons still cherish an idea somewhat similar in character. It is a disgrace, these people say, to go to an insane asylum. But why a disgrace, if some immoral, vicious or depraved element does not influence the outbreak of the mental disease? They see in the outbreak, a more or less direct punishment for a moral transgression. They lose sight of the intervening physical processes, which are the direct and true causes of the attack, and call a *physical* a *moral* transgression. I do not mean to deny here, that moral laws, which frequently are natural laws, can be broken without danger to mental integrity. On the contrary, a correct moral process is as necessary to mental health as any correct physical process and every abnormal departure is attended with danger. But what I do wish to combat is the idea, still so prevalent, that insanity is in some measure a sin as well as a disease, and to be looked at somewhat as a spiritual transgression. Perhaps it may be said I state the case too strongly, but no one will deny, I think, that there is still a certain stigma partially moral in character attached to an outbreak of mental disease unlike that associated with any other disease. The subject of the attack is looked at with more or less suspicion, and commiserated for his misfortune, which has lowered him somewhat in the estimation of his fellows. In time even this remnant of the old feeling will disappear, and persons suffering with mental diseases will be as openly treated and talked about among their friends as are the patients in general hospitals.

Haslam in the second edition of his entertaining book called "Observations on Madness," and published nearly eighty years ago, speaks of "Insanity being now generally divided into mania and melancholia (it will be observed he naturally speaks of mania first as we do at the present time), but formerly its distributions were more numerous." He refers to Paracelsus, who differentiates *lunatici*, *insani*, *vesani* and *melancholici*, making a separate class of each. "Paracelsus, who contemplated this subject (demoniacal possession) with uncommon gravity and solicitude, is of opinion that the devil enters us much in the same manner as a maggot gets into a filbert." These extraordinary ideas of Paracelsus seemed to exert no influence on his classification of the divisions of insanity.

Haslam further refers to Dr. Ferriar, who divided insanity into mania and melancholia. "In mania he conceives false perception, and consequently confusion of ideas to be a leading circumstance." Melancholia "he supposes to consist in intensity of idea, which is

a contrary state to false perception." Haslam differs from Ferriar, partly, it would appear, in the use of words. He does not think that false perception, for instance, is a leading circumstance in mania, for he understands with Locke that perception means "the apprehension of sensations," and he has not frequently found that insane people perceive falsely the objects which have been presented to them.

It is possible that he misunderstood Ferriar's conception of the meaning of perception, which may not have been restricted to the apprehension of sensations, or physical phenomena merely, but may have included the apprehensions of mental impressions of all kinds. In their wider sense we can easily accept this definition as far as this portion of it is concerned. The confusion of ideas in mania, would be true of many forms, but not necessarily of all.

The element of intensity is certainly characteristic of melancholia, and it is a good word to use in defining this form of disease. As Haslam truly says this definition applies also to mania, though hardly equally, as he thinks. On the contrary, the intensity of mania is shown in general mental and muscular activity, and is the reverse of the circumscribed intensity of thought and feeling amounting to absolute pain in the mental process (psychalgia of Clouston), in melancholia.

Without proceeding further in this discussion of terms and definitions, we may accept mania and melancholia as having been pretty firmly established, and on a fairly scientific basis, at least, as early as the beginning of the present century. That these two forms of mental disease have stood the test of time, the severest of all tests, is a proof that they contained elements of truth and practical usefulness, not to mention scientific accuracy.

Burrows* at a later period in the century (1828), speaks of a definition suitable to every form of insanity, as an *ignis fatuus* in medical philosophy which all follow, and which eludes and bewilders pursuit. He mentions the variety in the nomenclature of mental disorders, citing as examples the *Déliria* of Sauvages and Sagar; the *Paranoïae* of Vogel and Swediaur (the first allusion to the term paranoia I am familiar with); *Ideales* of Linnæus; the *Mental Diseases* of Macbride; the *Vesaniae* of Cullen; the *Paraneurisinic* of Young; the *Delirium* of Crichton and Foderé; the *Aliénation Mentale* of Pinel; the *Folie* of Esquirol; *Echphronia* of Good, &c.

*Commentaries on the Causes, Forms, Symptoms, Treatment, Moral and Medical, of Insanity. By George Man Burrows, M. D.

Mania and melancholia he objects to, because they do not preserve that permanency of character which is necessary to a genus. He even doubts their pretensions to be considered as distinct species. He mentions the great number of varieties of melancholia made by nosologists, and cites old Burton, who, in his *Anatomy of Melancholy*, declares there are eighty-eight degrees of it.

Pinel's distinctions in classifying he thinks must be viewed with great caution, as he refines too much. Esquirol he has a better opinion of, though he objects to the substituting of the new and compound word *mono-mania* for melancholia, the latter word being sufficiently expressive, besides being universally received and understood; this notwithstanding his previous restrictions as to its significance. "This phrase," he says, "appropriately enough expresses that variety of melancholia not infrequently met with, which exhibits a solitary delusion; and to that sense it should be restricted." His chief objection, however, to the word monomania, is that it has been adopted by the phrenologists to express the idea that different hallucinations are dependent on the deranged function of that particular organ, or portion of the encephalon which exercises it. The latter objection has hardly been urged, I imagine, during the present generation.

Burrows finally offers an arrangement of his own, simply as a basis for discussion, prefacing it with the advice to divest the mind of all predilections for systems, definitions and nice distinctions in attempting to arrange a system for one's self. His order is as follows:

1. Delirium—Delirium Tremens.
2. Mania—Puerperal Insanity.
3. Melancholia—Suicide.
4. Hypochondriasis.
5. Demency.
6. Idiocy.

This plan is very similar to Esquirol's of *mania*, *monomania*, *demency* and *idiocy*; monomania being changed into melancholia, and hypochondriasis added.

Prichard, who wrote a very excellent book in 1837, entitled "A Treatise on Insanity and other Diseases affecting the Mind," followed in the wake of Pinel and Esquirol, and strongly advocated moral and intellectual insanity as two forms of mental disease. Insanity he called a chronic disease, chronic apparently being used in the sense of continuous. This disease he regarded

as manifested by deviations from the natural and healthy state of the mind, such deviations consisting either in a *moral perversion* or a disorder of the feelings, affections, and habits of the individual, or in *intellectual derangement*, which last is sometimes partial, namely in *monomania* affecting the understanding only in particular trains of thought; or general and accompanied with excitement, namely, in *mania*, or *raving madness*; or, lastly, confounding, or destroying the connection, or association of ideas, and producing a state of incoherence.

Prichard was much impressed with the completeness of the arrangement of Heinroth, which for the time was very elaborate. Heinroth made three classes of mental diseases, corresponding to the three departments of the mind. The first class consisted of disorders of passion, feeling or affection of the moral disposition. The second, of disorders affecting the understanding, or the intellectual faculties. The third, of disorders of the voluntary powers, or of the propensities and will. These classes were subdivided into two forms, the first one being exaltation, the second depression; and still further subdivisions were made.

The systems of classification of Haslam, Burrows and Prichard, which I have detailed above, do not call for special comment from a critical point of view at the present day, as time has clearly enough pointed out these defects, and they carried their moral with them. They are, however, of great interest in their bearing on the advancement made in the knowledge of insanity. The most prominent features, or characteristics of mental disease, namely, excitement, or depression, mania or melancholia, had been recognized long before the time of Haslam. They were always present in all cases of insanity, and it was then, and is now for that matter, almost impossible to speak of mental diseases without referring to these conditions. Beyond these terms the early writers had too little knowledge of even the external manifestations of disease, to arrange a classification, and it has been better for succeeding generations that they did not indulge in speculations, which would have been founded on ignorance, and would have rendered the whole subject even more vague and confused than it was at the beginning of the century.

Conjointly with the advent of Pinel and Esquirol, speculative psychology was assuming a more practicable and tangible form. The qualities of mind, the elements of ideation, and mental processes in general, were interpreted in a more rational manner. This progress in the knowledge of normal mental phenomena

happened at a most fortunate time, coming as it did, when the accurate and fresh observations of these masters of practical research just mentioned, called for a more full and scientific system of arrangement than had as yet been possible. They availed themselves of the opportunity offered, and though they were not able to arrange a system, in either case, which could be satisfactory for all time, they did throw some light on important principles, and pointed out the way for further work in the same direction. Perhaps the greatest service Pinel and Esquirol did to the medical profession, was to elevate the specialty of psychiatry to a position both scientific and dignified, which it had previously held to a less degree.

The works of Burrows and Prichard reveal to us the amount of knowledge possessed by the English on the subject of general paralysis of the insane in the early period of its discovery, and what they write is of interest as bearing on classification, though I can only say a word here in reference to it.

Burrows treats of paralysis as a complication of insanity. He has taken most of what he says from Esquirol and Georget, especially the latter, but has modified their views somewhat in accordance with his own, and nowhere describes a true paralysis of the insane, though the description of chronic-muscular paralysis, taken probably from Georget, corresponds in many ways to it.

He thinks very few persons die of paralysis in England, and cannot understand why half of the insane inmates in French asylums, according to Esquirol and Georget, should die of this disease.

Prichard, writing in 1837, or about ten years after Burrows, takes a much wider and more scientific view of general paralysis of the insane than the latter, though the observations of Calmeil were published already as early as 1826. He describes the three stages of the disease, taking his descriptions chiefly from the French writers, and quotes enough from these writers to show how little we have advanced on them in the descriptions we are able to give of general paralysis, as far as the essential features of the disease are concerned.

It is surprising to find that Esquirol had as many as one hundred and nine paralytics under his charge during three years at Charenton. Of these, ninety-five were males, which would leave fourteen cases among females, or rather more than twelve per cent, which is a considerably larger proportion than I should have looked for, so many years ago.

Both Esquirol and Prichard did not agree with Burrows that general paralysis of the insane was a comparatively rare disease in English asylums. They were inclined to regard this conclusion as due to deficient observation, rather than to the rarity of the disease. We can readily believe that such was the case, as in later times the number of cases under similar conditions of imperfect and unskilled observation, was underestimated in this country. Now the proportion of these cases, especially among females, seems to have rapidly increased, but we cannot doubt that this increase is partly accounted for by more accurate observations. And partly perhaps it is a matter of fashion, the diagnosis being often made on insufficient, not to say scanty evidence.

General paralysis of the insane was first admitted into a classification of insanity, so far as the writer's knowledge goes, not over thirty years ago, though as said above it was recognized many years before, first by Bayle in its connection with insanity, though most accurately and carefully described by Calmeil.

To me, even at the present day, it is a matter of doubt whether general paralysis of the insane should be found among the forms of insanity in the most restricted sense. And some day I believe we shall take it away from these forms, and place it, from its closer pathological connection, among the paralyzes. But this will be at a time when classifications can be made on strictly scientific grounds, and not as now, on practical grounds, which afford the only secure footing for our present needs.

Since the time of Prichard, new systems of classification have been constantly made. I can allude here to only the most important of these, though all are of interest in one way and another.

About the time of Prichard (1836) Jacobi, representing the somatic school of German psychology, brought forward the theory of the physical basis of mental disease, and though his idea that insanity existed solely as the consequence of disease in some part of the body,* was a little stretched, the general principle involved in his theory, showed a great advance over the former purely psychological theory.

Thirty years ago the study of classification received a fresh impetus from the researches of Schroeder Van der Kolk, Morel, and Skae. The first of these considered the subject from a somato-ætiological point of view, or as Tuke calls it, "a pathogenetic standpoint." He made the two kinds of *idiopathic* and *sympathetic* insanity. Instances of the first were acute and chronic idiopathic

* Bucknill and Tuke—Treatise on Insanity.

mania, hallucinations, &c. Of the second, sympathetic mania, melancholia proceeding from the colon, &c. The plan of this system, which attempts to trace the nature and origin of disease, is most admirable. The only trouble with it is, that it assumes that we know these data, which even to-day we do *not*. This being the case it is useless, a classification being necessarily, an arrangement of previously ascertained data.

Morel's plan (1860) like most of those emanating from the French school of psychology was reasonable in most of its details, though extended to take in idiopathic insanity (Group IV,) and sympathetic insanity (Group V.) His conception of *idiopathic* is quite unlike that of Schroeder Van der Kolk, taking in progressive weakening or abolition of the intellectual faculties, resulting from chronic disease of the brain or its membranes. General paralysis is also included in this group, and this is the earliest instance of its appearance in a classification, that the writer remembers. There may have been some earlier mention. Group I, or hereditary insanity; Group II, or toxic insanity; Group III, or insanity produced by the transformation of other diseases, and Group IV, or dementia, "a terminative state," are all good in the light of more recent years, as far as these headings are concerned. It is only in their details, which I cannot go into here, that they are crude, or unscientific.

The ætiological system of Skae, contained much food for thought, being well worked out, and in many ways very suggestive. If there were any hope that such a system could be made to include all varieties of insanity, its adoption might be seriously considered, but with its thirty-four forms, it falls so far short of giving all the causes of insanity, that it would constantly be found to be imperfect. On the other hand as it is, it introduces a large number of heterogeneous forms, and necessarily so, many of which an ordinary observer would never meet with, and consequently would always find a burden and never a help.

At the International Congress, in Paris, in 1867, an attempt was made somewhat similar, I should judge, to that of the Antwerp Congress, to adopt a system which is excellent in some directions, but very disappointing in others. Form I, called *simple insanity*, includes mania, melancholia, monomania, circular insanity and mixed insanity, delusion of persecution, moral insanity and the dementia following these different forms of insanity. From this list, form I, would seem to include almost all kinds of insanity, and it practically does, with the exception of forms II, epileptic

insanity, and III, paralytic insanity, or general paralysis of the insane. The report very truly says that "this form of disease is a morbid entity," and so it is, but whether it is "not at all a complication or termination of insanity," depends very much upon its ultimate correct classification. *Senile dementia* is put by itself in form IV, and form V is *organic dementia*, which is the sequence of no form of insanity, but "is consequent upon organic lesion of the brain, nearly always local, and which presents, as an almost constant symptom, hemiplegic occurrences, more or less prolonged." I fail to see the necessity which calls for the last form, neither can I see why, strictly speaking, such dementia should be classed under insanity at all, unless it be made one form in a general class, including all dementiæ. It is refining beyond a point in harmony with the system in other particulars.

Forms VI and VII were respectively *idiocy* and *cretinism*. Outside of the above so-called "typical forms," others were made such as: delirium tremens, delirium of acute disease, simple epilepsy.

The above system was neither theoretically nor practically successful, and a committee appointed by the British Medico-Psychological Association in 1869, recommended another system, based upon those of Dr. Skae and the International Congress.

The most striking mistake of this system was to make two great classes of curable and incurable forms, not only because these words are undesirable in themselves, as giving a hopeless prognosis in the incurable forms, but equally because the word curable is indefinite and, in a large percentage of cases, not true to the facts. Neither of these words can be used with propriety, or safety, in the classification of mental diseases.

The first five of the curable forms of the British Committee, or the first ten, if we use the sub-divisions of mania and melancholia, are forms occurring only in women. They are the insanities of pregnancy, child-birth, lactation, climacteric insanity, and insanity from uterine disorder. The last curable form, hysterical insanity, should come next as occurring almost entirely among women. The other curable forms include the insanities from tuberculosis, masturbation, alcoholism, delirium tremens and post-febrile insanity. It is incredible why delirium tremens should be inserted among these forms, as it is the only form of delirium given, and is certainly no proper form of insanity under any circumstances.

The arrangement of the incurable form is very puzzling, and I must confess it is to me quite inexplicable. It is as follows: 1, General Paralysis. Paralytic Insanity. 2, Epileptic Insanity.

Epileptic. 3, Senile Insanity. Senile Dementia. 4, Paralytic Insanity. Organic Dementia. It will be seen that there is no place in this arrangement for ordinary terminal, or secondary dementia, as Spitzka has already pointed out.

I have ventured to give the system reported to, but not accepted by the British Medico-Psychological Association, because it represents an effort of twenty years ago to produce a standard of classification in keeping with the times, and under the most favorable circumstances, yet, although there are striking merits in its arrangement, it practically fails, and fails because it does not find the correct principle to make it easily appreciated, and simply applied. This system serves also the further purpose of making a contract with the recent advances in this subject, as I shall show further on.

During the last twenty years, in Europe, and the last ten in America, remarkable progress has been made in the direction of a better understanding of psychological medicine as a science, and it is during these years that the volume of written communications has vastly increased. Many of our most able observers have published treatises, or monographs, in which classifications of insanity have been presented. Among these may be mentioned Griesinger, (though chronologically a little earlier), Maudsley, D. Hack Tuke, Tuke Batty, Bucknill and August Voison, as belonging to the first half of the twenty years. Among those of the latter period are Krafft-Ebing, Westphal, Schüle, Meynert, Clouston, Savage and Spitzka.

The systems of all these writers contain many points of value, these of Krafft-Ebing and Clouston being especially valuable. No two are alike however, and some of them are much too confused and elaborate for every-day use.

Krafft-Ebing makes the mistake, of the British Medico-Psychological Association, of separating curable from incurable forms, which cannot be other than unfortunate. His general plan of making two groups, the first of which includes "mental affections of the developed brain," and the second, "mental results of arrested brain development," is accurate, and therefore good. Division II, of "psychical degenerative states," from our American standpoint, is too elaborate. Division III, "brain diseases with predominating mental symptoms," includes dementia paralytica, *lues cerebialis*, chronic alcoholism, senile dementia, acute delirium. The mistake here made is in the nomenclature, for brain diseases are not necessarily cases of insanity, and in the above heading

the central fact of the existence of insanity does not stand out with sufficient prominence.

The chief merit of Krafft-Ebing's system is, that it is essentially a clinical one, and takes its nomenclature from the most conspicuous features of each form, of whatever nature. It is in this way accurate and reliable.

Whether we wish to adopt the form of *Verrücktheit*, *primäre* and *secundäre* is still an open question. In the writer's opinion we are passing through a dangerous period of word-coinage, and though the temptation is strong to rehabilitate our ideas in neat, tailor-made phrases, it is better to err in the direction of too few, rather than too many of these expressions. Dr. Clouston, as you are well aware, has recently suggested an ingenious system of nomenclature, which like most of his work, is both original and meritorious. He has a skillful way of catching the most salient point in any matter under discussion, and transfixing it in black and white, with almost photographic accuracy. Even in his classification he has shown this same talent, and evolved a system which gives a correct view of the scientific theories of mental diseases and allied conditions, and his new names, like specially constructed tools for an unusual purpose, are very convenient, even "handy," I was about to say—whether they are correct, will bear the test of time, and can be adopted without hesitation, are questions into which I need not enter into detail here. I can only say that I think the time has not arrived yet.

The International Congress of Psychiatry and Neurology, held at Antwerp in 1885, inaugurated a new movement in the consideration of the classification of mental diseases. The starting point of this movement was a report of Professor Lefebvre on "The Best Basis of International Statistics Regarding the Insane," presented to the Congress on behalf of the Société de Médecin Mentale of Belgium, which appreciated the need of greater uniformity in classification, if any results were to be accomplished in the compilation of statistics.

Professor Lefebvre's paper was admirable in tone. He recognizes the fact that we are still in the chaotic period of classification. It is impossible in the present state of science to exactly define all types of mental disease, but a certain number of morbid types can be selected, under which sub-divisions can be arranged from time to time. If the best authorities are examined it will be found that seven or eight types are generally accepted, and from a clinical point of view, these types are necessarily thus limited.

The Professor's own system is as follows: *Idiocy, cretinism; paralytic insanity; dementia; insanity produced by intoxication; mania; melancholia; folie circulaire*. Few authors, he thinks, would be disturbed by this classification. These eight types fall into two groups. The five first could be grouped under the title *organic insanity*, and the three remaining types, which are characterized by nervous and intellectual disturbances of obscure origin, could be called the *neuro-psychoses*.

"If," Professor Lefebvre says, "we seek faithfully to obtain widespread and statistical information, covering the eight types we desire to see adopted, valuable material would be afforded for the study of psychiatry, and the allied sciences. But in confining the matter to the eight principal types of mental diseases most widespread, we should not forget the many forms of mental diseases that clinical observation reveals to us, but see that they are mentioned in some manner, and where related under the organic forms. This is our idea in the matter: the statistics of insanity should be condensed in one grand total concerning idiots, the demented, maniacs, &c., which should show their sub-divisions, and the various forms of idiocy, dementia and mania; but this grand total should comprise every form and variety of the disease."

The essential feature of Professor Lefebvre's system would appear its adaptability for statistical purposes chiefly in asylums, and this fact should be borne in mind in any consideration or criticism of systems growing out of the Antwerp Congress.

Professor Meynert, in a paper published last year, correctly says of the above system of Professor Lefebvre that dementia should be considered as a secondary stage of other forms—altogether Meynert thought this classification too limited. Neither did he agree to the additions of Semal and Magnan of hereditary mental disorders and chronic delirium. Intermittent mental disorder, he thought from its richness of forms, should be taken up.

Meynert alludes to the excellent system of Westphal, published in 1885, which included—1, *Melancholia*; 2, *mania*; 3, *secondary mental disorder*; 4, *paralytical mental disorder*; 5, *mental disorder and epilepsy*; 6, *imbecility, idiocy and cretinism*; 7, *delirium tremens*. He seems to think well of it, and speaks of the efforts of Westphal, to amplify and not curtail a system, as illustrative of the fundamental German plan.

Meynert well says that "every classification is good which comprises within itself all possible learning of its day, and none

should stand which goes beyond that." This is extremely true as an aphorism, but when the test of ordinary knowledge and use is applied to it, the aspect of the case is changed. Is a classification to be used by the comparatively few on the pinnacle of learning, or by the many less well-informed who desire a simple system for practical purposes? Perhaps Meynert would say that ignorance should be no excuse, but the most scientific being the best, should be held up as the only one. Such a plan, I fear, would not work in practice.

Meynert's own system is an illustration of a classification which comprises within itself much of the learning of the present day, more especially in Germany, but can we accept it as the basis of an international arrangement? It looks simple enough on the face of it, yet I fear not one out of ten, and perhaps many more, would clearly understand it. It is to me personally very fascinating, though I must confess I had to carefully study the accompanying explanations, before I mastered it. It is both scientific and philosophical, and even inspiring when viewed from Meynert's own standpoint, and especially interesting because of a certain kind of suggestiveness it contains, naturally leading to a broader view of insanity. An example of the correctness of this statement in the last division, called "Individuals who need watching—(attempts at suicide, crimes, &c.)" Meynert says that "individuals who need watching are not diagnosable as insane. Attempts at suicide and crimes which are explainable as the result of insane ideas, fear, alcoholism, are not the crimes of individuals who need watching. Still the latter, on account of the interest that is to-day taken in crimes in their aspect of abnormal psychical phenomena, should be statistically classified in asylum reports."

Now this is broad, scientific humanitarianism as applied to mental diseases, and especially worthy of consideration, because of the narrow and prejudiced views of lawyers and jurists. But can we practically make use of this classification in our American asylums in compiling our statistics? That is the question that confronts us. Our asylums in this country are for the insane alone, with few exceptions. In isolated instances, in certain states, doubtful cases are sometimes sent to the asylum for observation. These persons have committed crimes, and their insanity is a matter of doubt. Few even of this class, however, reach the general asylum, the period of doubt being passed in a jail or prison. The asylum receives, and in my opinion should receive,

only undoubted cases of insanity. The moment that the asylum admits the sane with the insane, the legal and moral status of the institution must be modified, and the result is unfavorable to the best interests of the insane. Therefore, in my opinion, "individuals who need watching," should be placed in a special department of a criminal lunatic asylum, or some other specially prepared department to remain until proved sane or insane. Under these circumstances, it will be seen, that we can practically make no use of the above suggestive form of classifications.

Other objections to Meynert's system readily occur, which render it unfit for practical use in our American asylums. These objections arise largely from our own scientific backwardness, but they are, none the less, insurmountable for the present.

At the Antwerp Congress, an "International Committee on International Statistics of the Insane and Classification of Mental Diseases" was organized, Clark Bell, Esq., president of the New York Medico-Legal Society, being the member for America. Through the efforts of this committee, considerable good work has been done since. Systems of classification containing many admirable features have been prepared by Professor Verga of Italy, Guttstadt of Germany, Benedikt of Austria, Wille of Switzerland, Mierzejewski of Russia, Steenburg of Scandinavia, Dr. Hack Tuke of England, Magnan of France, Raemer of Holland. Within a recent period in this country classifications have been published by Drs. Edward Cowles, R. H. Stearns, and H. M. Bannister. These various systems cannot be discussed here for lack of necessary time. But it cannot be doubted that they will each contribute something of value toward the general result of a practical, and therefore acceptable system of classification.

In September last, at the invitation of Mr. Bell, the American member of the international committee, a conference of alienists was held to prepare an American classification, which Mr. Bell could present in his report to the general committee.

At the conference, Dr. Pliny Earl, formerly president of the American Association of Asylum Superintendents, represented the Medico-Legal Society of New York, and also presided over the meetings. Dr. R. H. Stearns appeared as the delegate of the association just mentioned, and Dr. J. P. Bancroft and the writer appeared as representatives of the New England Psychological Society. Drs. Ira W. Russell and W. B. Fletcher were also present.

The conference considered various systems of classification, and considered them only in the light of an arrangement for the compiling of asylum statistics. For this purpose no one was satisfactory, though the English system most nearly approximated to what was wanted.

The gentlemen present will remember that this system, recently accepted by the Council of the British Medico-Psychological Association, and published in the *Journal of Mental Science* for July, 1886, is as follows:

- I. Congenital, or infantile mental deficiency. Idiocy. Imbecility. Cretinism. *a*, With epilepsy; *b*, Without epilepsy.
- II. Epilepsy acquired.
- III. General Paralysis of the Insane.
- IV. Mania, {
 - Acute.
 - Chronic.
 - Recurrent.
 - A potu.
 - Puerperal.
 - Senile.
- V. Melancholia, . {
 - Acute.
 - Chronic.
 - Recurrent.
 - Puerperal.
 - Senile.
- VI. Dementia, . . {
 - Primay.
 - Secondary.
 - Senile.
 - Organic, *i.e.* from tumors, hæmorrhage, &c.
- VII. Delusional Insanity (monomania.)
- VIII. Moral Insanity.

Dr. D. Hack Tuke thought that recurrent insanity should be left out, because it usually required one year of observation before it could be certainly diagnosed. He also submitted on his own behalf several sub-divisions.

The plan of classification finally adopted by our American conference, and presented for discussion to-day, is as follows:

1. Mania, {
 - Acute.
 - Chronic.
 - Recurrent.
 - Puerperal.
2. Melancholia, . . {
 - Acute.
 - Chronic.
 - Recurrent.
 - Puerperal.

3. Primary Delusional Insanity (monomania.)
4. Dementia, {
 - Primary.
 - Secondary.
 - Senile.
 - Organic (tumors, hæmorrhages, &c.)
5. General Paralysis of the Insane.
6. Epilepsy.
7. Toxic Insanity—(alcoholism, morphinism, &c.)
8. Congenital Mental Deficiency, . . . {
 - Idiocy.
 - Imbecility.
 - Cretinism.

The conference considered for some time whether the congenital forms—I here mean idiocy, &c.,—should be placed first or last. In my own opinion they should come first, as such is their natural order, and natural order should be adhered to as far as possible. These forms are, however, already of practically very little importance to us, as the number of idiots is almost nothing in American asylums, and will soon wholly disappear. I trust that I shall not be accused of boasting, if I venture to assert that the United States is in advance of other countries in institution provision for idiots. A recent paper of Dr. W. W. Ireland for instance, on “The Admission of Idiotic and Imbecile Children into Lunatic Asylums,”* shows how far behind us England is in this respect. Dr. Ireland takes very strong ground in this paper on the evils attending these admissions. In one place he says, “Surely this confinement of idiotic children in asylums is an outrage both to the idiotic and the insane.” He “knows of idiots of low type who are kept in asylums with lunatics in all the stages of their attacks and recoveries.”

A committee, consisting of Drs. Campbell, Clouston, Ireland and Rutherford was recently appointed to ascertain the actual number of idiots in English asylums; this having never been done before. In thirty-one county asylums they found that there were 1,857 idiots, which certainly shows they cannot, in English tables, leave out idiots and imbeciles. As far as our lunatic asylum statistics are concerned, this might be done in the United States, as already intimated, but in our classification we naturally included these classes, in deference to the idea of international unity.

In our system we followed the time-honored custom of putting mania first and melancholia second. It sounds more natural,

* Journal of Mental Science, July, 1886.

having been done so long ago as the time of Haslam, as I have already said. It is, however, not ætiologically correct, and in time states of depression should precede states of exaltation, as being the sequential and therefore the natural and proper order.

I can hardly agree with Dr. Tuke, that recurrent forms should be omitted, because a long time is necessary for their diagnosis. While this is true in some cases, it is not true in others. The history of the patient alone often pointing to the alternating character of the disease. Furthermore, as far as my observation goes, this type is growing more common, or we are becoming more skilled in its detection. It is, at any rate, in my opinion, important to leave a place for alternating forms.

It will be observed that we omitted *mania-a-potu*, I think with benefit. This term is rarely used with us, and under toxic insanity a place can be made for cases arising from alcoholism, either acute or chronic; or where the alcohol has been a less direct cause, producing a form of mania or melancholia, precisely similar to these forms, it will be sufficient to place it with them.

Our Form 3 of "primary delusional insanity" was the only term coined for our arrangement, and is naturally the one most open to criticism. We desired to do away with *monomania*, an expression which has slowly lost its significance, until it is now relegated to brackets, and will soon be lost in oblivion. This form corresponds to *primäre Verrücktheit* of the Germans, a term much affected by those who like new and unusual names, rather than plain and common ones. The meaning of the term is excellent, and we are indebted to the Germans for throwing new light on the condition which it describes, but the introduction of technical terms in a foreign language bodily into our own language is unscientific, and frequently perplexing, and must sooner or later be abolished for an English equivalent.

Paranoia is better than *primäre Verrücktheit*, and would in time become assimilated into the language, but an English expression is still better. We accordingly adopted *primary delusional insanity*. The use of the word "delusional" has been criticised, but as it helps to define the intention of the word, and serves as a connecting link with monomania in the minds of those inclined to cherish this word, it strengthens rather than detracts from, the significance of the expression.

Of Form 4, which includes the dementias, little can be said. It is a duplication of form V of the English system, and adopted in conformity to this system.

Form 5, is general paralysis of the insane, which finds its place here appropriately as an organic form of disease. I have already intimated that this form of disease did not seem to me to belong, in the most restricted sense, to mental diseases, but usage at present classifies it with these diseases and it must enter into any system. The term is much too long and unsatisfactory as the name for a form of mental disease. General paresis is better, but not what is wanted. Paralytic insanity is incorrect, and paretic dementia or paralytic dementia cannot be advocated, though used somewhat by both French and Germans. It is simply making a new form of dementia and confusing it with the general class of secondary forms. These forms of dementia are too numerous now, and we should hesitate to add to them. The chief merit of the expression is its brevity.

Form 6 is epilepsy, more properly epileptic insanity, the name of the primary disease being used in deference to the English system.

Form 7 alone remains to be mentioned, which is "toxic insanity." The value of the expression as the general name of a supposed group almost entirely limited to one form of disease is a question which time will determine. It has the sanction of many authorities.

I have simply called your attention to some of the points which arose in our consideration of the formulating of a new system. Our guiding thought was utility for the purpose intended. The entering wedge toward the adoption of an international system seemed to lie in the acceptance of a plan which would approximate to that of some other country whose ideas were most nearly in harmony with our own. That country was found to be England, hence, in part, the similarity of classification.

If such a thing as an international system is ever possible, which I am somewhat skeptical about, it will be when our scientific advancement has arrived at the same approximate point, and when we can view disease from a practically unanimous point of view. We shall then have no doubt what each other means, and shall employ our time harmoniously in arranging and labeling our morbid phenomena, and not in vaguely interpreting something we are ignorant of.

At the present time we must be satisfied to lay a few foundation stones, or else adopt two systems, one suited to asylum statistic compilation, and the other to the varying scientific needs of the different countries.

No system has attracted me more as a starting point, or foundation for elaboration than that of Professor Wille of Basle. As you will remember this is as follows:

1. Psychoses Congenital, { Idiocy.
Imbecility.
2. Psychoses Simple.
3. Psychoses Organic, . . { Psychoses Paralytic.
" Senile.
Other organic psychoses.
4. Psychoses Epilepti.
5. Psychoses by intoxication—Alcoholic Psychosis and others.

This arrangement is extremely simple, and yet would allow of indefinite expansion.

One objection that may be urged to it is the use of the term "psychosis." It has already been frequently used to signify mental disease, but never as yet has been formally accepted. I think it highly desirable to use some new term instead of "insanity," "mental disease," "mental disorder," "mental alienation," &c. These words are too long, and either too definitive, or lacking in scientific accuracy. We need a medical term, restricted to the use of physicians, applicable, scientific and short. Such a term will help to further dignify the specialty of psychiatry, and to set it still more remote from the category of moral infirmities as understood by the ignorant. I urged the adoption of the term "psychosis," at our American conference, though at that time we wisely decided against it. It may be that a new term must wait for the approval of time and usage, but if it were possible to more forcibly introduce it, in my opinion no greater service could be done by a medical congress than to substitute such a term as "psychosis" for the above unscientific and objectionable ones.

CLINICAL CASES.

IDIOCY AND IMBECILITY DUE TO INHERITED SYPHILIS.*

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From all we know of the far-reaching constitutional effects of syphilis we might fairly expect to find the inherited taint a potent factor in the production of congenital or developmental imbecility. Yet when we turn to statements by high authorities on this subject, or to the statistics of imbecile institutions, we are surprised to find how rarely syphilis is mentioned in the etiology of idiocy. Thus Dr. Langdon Down, the most experienced of British writers on the mental affections of childhood,[†] states that in not more than two per cent of his cases has he noted signs of inherited syphilis. That great syphilographer, Mr. Jonathan Hutchinson, mentions only three cases of juvenile imbecility among about 170 in which hereditary syphilis was the cause of specific eye and ear affections, ("Syphilitic Diseases of the Eye and Ear, 1883,") and in his Lettsomian Lectures (1886) he avers that "idiocy in connection with congenital syphilis is certainly not common." I note that in a lecture by Dr. Fletcher Beach in the *British Medical Journal* of May 28, 1887, on the "Influence of Hereditary Predisposition in the production of Imbecility," he does not even refer to syphilis, and think I may conclude that in his large experience at the Metropolitan District Asylum at Darenth it has not proved an easily traceable parental cause. In the Tables of Causes appended to the Reports of the Earlswood Asylum, inherited syphilis figures as but an infrequent item; and many years ago the result of a visit by Mr. Jonathan Hutchinson to that asylum was to convince him that "only a very few" of the patients there could be reasonably suspected of being syphilitic. Dr. Kerlin, superintendent of the Pennsylvania Institution for Feeble-Minded Children, found, in carefully analyzing the parental and grand-parental antecedents of one hundred of his cases, only two in

* Presented at the Ninth International Medical Congress, Washington, D. C., as part of the discussion on "Syphilis and its Relation to Insanity."

† "Mental Affections of Childhood and Youth," p. 64. 1887.

which a syphilitic history could be traced, though from his table* it would appear that four of the patients exhibited some evidences of syphilitic taint. At the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties of England, at Lancaster, 1,170 cases are recorded in the case-books, of which the history of perhaps 1,000 has been fairly ascertained. In ten cases only is there reason for suspecting inherited syphilis, and in four only can the evidence be called satisfactory. This gives a proportion of one per cent in which hereditary syphilis is a presumable factor, and only .04 per cent in which it is an ascertained cause, of the imbecility.

In spite of these figures, I am inclined to believe, with Dr. Judson Bury, that in fact inherited syphilis plays a larger part in the production of mental enfeeblement in childhood than institution statistics would lead us to suppose. Parental syphilis is not likely to be avowed in applying for the admission of a child to a charity, and questions bearing upon the infantile signs of congenital syphilis are often eluded if their drift be apprehended. I have indeed known mothers attribute the most characteristic marks of a syphilitic taint to some extraneous cause, as for instance, that typical radiating scars from the angles of the mouth in a girl with interstitial keratitis were produced by an attack of small-pox! Another reason why syphilitic cases are comparatively rare in institutions for imbeciles is the fact that as mental impairment is not usually marked till the period of second dentition, and is often accompanied by paralytic and other degenerative symptoms, such cases are not readily received into training schools intended for more or less educable children, the mental characters partaking rather of the nature of dementia than of simple imbecility. A certain number of cases, primarily of syphilitic origin are moreover classified not as syphilitic, but as the result of hydrocephalus, eclampsia, or epilepsy, affections themselves sometimes springing from an inherited syphilitic taint.

With these prefatory remarks I will now proceed to give brief notes of those of my cases in which the syphilitic etiology is fairly well ascertained.

CASE I.—M. A. L., (girl); aged fourteen. Parents not seen by me, but following history kindly furnished by Dr. Judson Bury, of Manchester: "Mother had ten full-time children and two miscarriages. First, dead born—(during this pregnancy, about eighth

* *Etiology of Idiocy*, Proceedings of Association of Medical Officers of American Institutions for Imbeciles, 1880, p 150.

month, mother had brown spots all over body which Doctor called "the bad disorder"); second died when four and a half years old, idiotic; third, the patient, M. A. L.; fourth died in convulsions, aged six weeks; fifth, living, aged eleven, had "snuffles" when baby; sixth and tenth living; seventh, eighth and ninth died in infancy. Relatives on either side said to be free from neurotic weakness. Patient covered with spots when a baby, and snuffled. Subsequently had fair health till ten years old, when mind became weak, and later the power of walking deteriorated, also control of bladder. When admitted to Royal Albert Asylum (in September, 1882) described as fairly nourished, with peculiar dirty brown skin; no scars about mouth, but some small white cicatrices at margins of lower lip. Upper central incisor teeth not characteristic, but have shallow notch in lower edge. Corneæ clear; signs of well-marked disseminated choroiditis, most advanced in right eye. Slow, sometimes tremulous in movement; speech drawling; often repeats questions instead of replying; has forgotten letters, which she could formerly read correctly; can not write, and counts only by rote. Superficial reflexes well marked; knee-jerk exaggerated on both sides. This girl did not improve materially during her two years' residence in the asylum, and was ultimately sent back to her union. As Dr. Judson Bury remarks in his excellent paper in "*Brain*," (April, 1883) to which I am indebted for some of the foregoing details—"the mental failure in this case, together with the choroiditis and other symptoms, suggest some thickening of the pia mater, and perhaps cortical change."

CASE II.—A. D., (girl); sixteen years of age; admitted January, 1886. Father and mother said to be intemperate; family history as follows: Mother has had twelve children, of whom four were still-born; three only survive, inclusive of A. D., who was the first-born; child had rash on face and chin when three months old, (mother says *small-pox*!) and breathed curiously. Fairly healthy during childhood, and made some progress at school; information imperfect as to school attainments. On admission she was described as an odd-looking girl; blind of left eye from cataract; speaks only in whispers; when asked her age, replies "God knows, I don't." Has linear radiating scars all round mouth, and the upper central incisors are decidedly notched. Subsequently it was noticed that the right cornea was somewhat opaque; inflammatory symptoms set in later, and there were well-marked symptoms of interstitial keratitis of both eyes. She was treated with

perchloride of mercury, and gradually the condition of her eyes improved; mentally there has been but little change since her admission. There are no distinct paralytic symptoms, but she has shuffling gait.

CASE III.—A. B., (girl); aged thirteen; admitted recently. Family history (kindly furnished by ordinary medical attendant) as follows: Father has had skin affections of doubtful character; mother healthy since birth of third child; has had eight children; first and second still-born at sixth and seventh months respectively; third child had snuffles, rash, tetany, (mother had severe eczema of breast and sore throat); fourth child died at fifteen months, wasting after convulsions; fifth child, the patient, A. B., was covered with bullae when six months old, and had laryngeal breathing; sixth child had suspicious rash; seventh, premature, died aged nine weeks; eighth and last, healthy. A. B. had whooping-cough severely when baby, but was fairly healthy and intelligent up to ten years of age; attended school and learned to read and write. About three years ago had attack of dizziness, followed by unconsciousness, attributed by parents to fall, of which, however it may have been the cause. From this time she had occasional slight paralytic seizures affecting right side, which is now feeble. She walks badly, dragging right foot. She has deteriorated mentally and can not now read or write; her speech is mostly interjectional. Cutting margin of upper incisors narrower than neck, but not grooved. Pupil of right eye constantly dilated; no evidence of choroiditis on ophthalmoscopic examination. Latterly some physical improvement has resulted in this case, under mercurial treatment, followed by the administration of cod-liver oil. She is able to walk better and to lift up the right foot, so as to get up and down stairs without difficulty, which she could not do when admitted to the institution, and she is better conducted generally. She has not had any seizures, causing slight paralysis (as described by her parents) since she came under my observation: these transient paralyses being probably such as Heubner attributes to syphilitic endo-arteritis. The first attack of dizziness followed by unconsciousness, which lasted several days, is attributed by her medical attendant to syphilitic meningitis.

CASE IV.—J. E. S., (boy); aged thirteen; admitted November, 1885. Family history: father died seven years ago of "brain-softening," aged thirty-eight. He was an unsteady and intemperate man, subject to frequent sore throat, pains in the bones, &c. Mother was a healthy woman till marriage, but constitution

impaired since. Had three children previous to patient, two still-born, one lived only a few hours. J. E. S., the fourth and last child, not a strong baby; had scaly eruption on buttocks and face when three weeks old, with soreness about anus. These symptoms lasted about four months. Also had snuffles. Legs and arms always weak; had numerous falls, and was run over on one occasion. Went to school up to eight years old, and though he did not learn much, his mental condition has become much worse since that age, and he has deteriorated in walking power. On admission he was noted to be a dull but irritable boy, sluggish in movement, and presenting a top-heavy appearance, his head being large, measuring $21\frac{1}{4}$ inches in circumference, and of hydrocephalic contour. Right pupil markedly larger than left; speech indistinct, but can swear! Teeth fairly good; upper incisors not characteristically notched: right side partially paralyzed. No educational attainments. During the two years he has been in the institution he has been gradually deteriorating in mental and muscular power, and is now quite unable to stand, and can only sit up in a chair when propped. Knee-jerk much exaggerated on each side. Sight apparently good; no evidence of choroiditis; corneæ clear; right pupil constantly dilated. This boy has not had any "fits" since four years of age, and then only one; but he is subject to occasional phenomenal flushings, attended with some amount of mental irritability.

The four cases detailed above from our case-books are the only ones in which a definitely syphilitic history is conjoined with distinctly syphilitic symptoms. It will be noticed that they present certain common characteristics, viz.: specific skin affections in infancy, followed by a period of comparative health and intelligence in early childhood, and a breakdown of bodily and mental power about the period of second dentition. In two of the cases there were signs of specific eye affections; in the other two marked inequality of pupils. There is also a certain similarity in the mental condition of these patients; all have lost whatever school attainments they acquired in early childhood, and there is a disposition to inertness, with easily excited reflex irritability, both muscular and mental. Whilst Cases I and II may be described as stationary, some improvement has occurred in Case III, and gradual deterioration is going on in Case IV.

I do not think it necessary to enter into details of the other six cases referred to, in which syphilis was suspected to be an aetiological factor, inasmuch as the evidence at present available is

scarcely satisfactory. In three of these cases the family medical attendant alleges the existence of a syphilitic taint in the parents, but nothing specific has been detected in the condition of the children; in the other three, suspicious signs exist in the children, but there is no corroboration in what is known of the family history.

Unfortunately I am unable to adduce pathological observations based upon post mortem appearances, never having had an autopsy of an imbecile patient recognized as syphilitic; but recently Drs. F. Warner and Fletcher Beach described in a communication to the Medico-Chirurgical Society of London (April 26, 1887,) a case in which chronic meningitis with false membrane adherent to the dura mater was found to exist, the symptoms having been those of "progressive dementia," commencing between six and seven years of age. It seems probable that, (as suggested by Heubner,)* "the most important symptoms of the form of syphilitic cerebral disease" observed in the case of imbeciles, "are to be referred to the affections of the cerebral arteries," the calibre of which becomes narrowed owing to endo-arteritis, producing (unless influenced by early and vigorous treatment) more or less cerebral atrophy. In conclusion I may say that so far as my own limited experience of the matter extends, the relation of inherited syphilis to idiocy and imbecility would appear to be rather that of progressive pathological change than of original formative defect.

* Ziemssen's Cyclopædia, p. 352.

CASES OF IDIOCY AND IMBECILITY, DUE TO INHERITED SYPHILIS.*

BY FLETCHER BEACH, M. B., M. R. C. P.,
Medical Superintendent of Darenth Asylum, Dartford, England.

This paper has been written to prove the negative rather than the positive proposition; to endeavor to show that imbecility is rarely the consequence of inherited syphilis.

I am supported in this opinion by well-known authorities who have written on the subject, and though I intend to refer to only a few, those who wish for a full bibliography will find such given in a paper by Dr. Judson Bury in the sixth volume of *Brain*.

Dr. Langdon Down, in his Lettsomian Lectures on some of the Mental Affections of Childhood and Youth, says: "Syphilis was not an important factor in the production of idiocy; in not more than two per cent were there signs of inherited syphilis."

Dr. Graham, formerly superintendent of Earlswood Asylum, stated in a paper he published sometime ago, "syphilis in the parents may account for a few cases. Information is not readily obtainable under this head."

Mr. Hutchinson examined the teeth of the idiots at Earlswood Asylum some years ago, but did not find the specific character in any number of cases. It should however, in fairness, be mentioned, that he has pointed out that it is only when there have been attacks of syphilitic stomatitis that we are to expect to meet with changes in the teeth from their normal types.

Dr. Ireland says: "hereditary syphilis does not seem to be a frequent cause of idiocy, though I have met with a few apparent instances of the kind."

My friend Dr. Warner, who is one of the physicians to the East London Hospital for Children, tells me that he has met in hospital practice with cases of specific disease in children leading to progressive dementia. In one there was gradual loss of mental function for three years, and then a stationary condition. The brother of this case had infantile hemiplegia and subsequent athetosis. Dr. Warner had found treatment with mercury and iodide of potassium useless.

Probably the disease leads more often to juvenile dementia about the time of puberty than to idiocy or imbecility, and if of

*Presented at the Ninth International Medical Congress, Washington, D. C. as part of the discussion on "Syphilis and its Relation to Insanity."

a mild type the case would not be sent to an asylum for imbeciles. In cases which are sent, hereditary neurosis will no doubt often be a predisposing cause. Of course, constitutional syphilis can only lead to idiocy or imbecility by causing some disease of the skull, brain membranes, or arteries, or all of these combined, and so affecting the nutrition of the brain, and though *a priori* one would think idiocy should be a frequent result, yet practically it is not so. Exostosis of the skull, thickening of the brain membranes and arteritis are not commonly found in idiocy as far as my experience goes. I have never seen a case of exostosis of the skull in this asylum, although 1,800 cases have passed through my hands, and have only found thickening of the membranes or arteries in seventeen cases post mortem, and in only one of these cases was there a history of syphilis.

The following cases are all that I have been able to find to illustrate the paper:

E. S., aged fourteen years, was admitted May 25th, 1875. She is of marked syphilitic type with depressed bridge of nose, keratitis of both eyes, so that she is almost blind, almost deaf; teeth ground. On admission she was fairly nourished, of fair complexion, quiet and well-behaved, could only say a few words. Her mental capacity was small, and though her powers of observation, imitation and attention were fair, she had little memory. She went to school in the asylum, but learnt only a few letters and figures. She said little, but answered when spoken to. She was fond of sewing and was employed in the workroom until December 16th, 1886, when she was discharged to the adult asylum. No history could be obtained, as she was never visited.

R. V., aged nine years; admitted April 18th, 1876. The relieving officer stated that the mother was a prostitute, and the child is said to have been an imbecile from birth. On admission she was well nourished, of dark complexion and lymphatic temperament. There was keratitis of one eye and the upper incisors were peg shaped. Her mental capacity was small. Power of observation and attention fair; memory slight; could say her name and a few words. After four years' training, she could only read the capital letters, spell a few words, count to 110, and recognize a few colors and forms. While under training keratitis of the unaffected eye supervened, and, notwithstanding mercurial treatment, some opacity remained, although the cornea in front of the pupil cleared up. She was discharged November 1st, 1883, to the adult asylum. There is no doubt, I think, from the life the

mother led and the low class from which she was drawn, that she had had syphilis before the birth of the child.

T. A. H. B., aged fourteen years; admitted November 6th, 1879. The mother had had syphilis before the father married her, and died of phthisis four years before the patient's admission. Paternal grandfather of patient also died of phthisis; paternal grandmother died paralyzed. The depressing influence of phthisis no doubt assisted in the production of imbecility. This was the second child; there had been ten, but all except the patient died soon after birth. T. A. H. B. was a well-nourished congenital imbecile, of dark complexion, with loss of power on the right side, probably due to fits, from which he suffered when an infant. He had prominent eyes and a very highly arched palate, but his teeth were normal. He was of an irritable disposition and masturbated a good deal. Mental capacity fair for an imbecile. After three years' training he could read well from the First Standard, transcribe and work sums. He could not work at a trade, being paralyzed on the right side. He was discharged to the adult asylum May 26th, 1882. In this case beyond the imbecility there was no sign of congenital syphilis.

E. B., aged seven years; admitted October 2d, 1879. The father had syphilis before marriage and communicated it to the mother. The family history is bad. Mother of very nervous temperament, maternal aunt epileptic, paternal uncle imbecile, maternal grandaunt insane. This is the third child. There have been five, of whom three are dead, one from hydrocephalus. The child is said to have been all right at birth, went to school and got on well until two years before admission, when she is said to have had a fright. She has since become very nervous and restless in her manner, and will suddenly stop while walking and scream out at the top of her voice.

On admission she was fairly nourished, of fair complexion, and it was especially noticed that her features were good. Teeth normal. She was bright looking but very bad tempered. Her mental capacity was small. She had scarcely any memory, though she talked fairly well. She attended school for some time in the asylum, but learnt nothing; was subject to violent fits of temper, when she would stop and pull out her hair. She has lately become very feeble in health, and so helpless that she has to be fed and fastened to her chair to prevent her falling out. I have no doubt that when the end comes thickened membranes will be found.

In the next and last case a false membrane was found after

death. As it has been previously reported I will refer to it very shortly here.

The case is that of a boy, aged seven years, who came under the observation of Dr. Warner in January, 1879. While an infant he suffered from snuffles, thrush and sores on the nates. He never had fits. As he grew up he became a strong boy, and went to school, where he did his lessons fairly. He continued bright and well until about eight or nine months before he was seen. The first thing noticed was a certain difficulty in his movements, the boy at the same time complaining of headaches, and crying out for slight causes. He was under observation until September, 1880, when he was admitted into Darenth Asylum under my care. He remained there until his death in January, 1882. At the autopsy, twenty-seven hours after death, the dura mater was found adherent to, but easily separable from a subjacent false membrane, which had evidently been formed some time. It was attached here and there to the upper surface of the pia mater by thin membrane, and could be traced for a considerable distance along the floor of the skull.

The family history showed that the maternal grandmother was epileptic, that the mother was liable to spectral illusions, and that the father had had syphilis.

This case, which had been carefully watched for three years, was clearly one of acquired imbecility, due to chronic meningitis, probably syphilitic in its origin, and is representative of many others, where, owing to the influence of heredity, indicated here by the history on the maternal side, the child is born with an unstable brain, easily disturbed by any cause. As previously mentioned, syphilis is not a common exciting cause of imbecility, but according to Heubner, hereditary predisposition to nervous diseases appears to exert an influence in determining the syphilitic poison towards the nervous system.

The brain weighed only twenty-seven ounces. Its growth had no doubt been interfered with by the chronic meningitis which had existed for some time.

A CASE OF INSANITY ASSOCIATED WITH ACUTE SYPHILIS.*

BY JOSEPH WIGLESWORTH, M. D.,
Rainhill Asylum, Lancashire, England.

M. H.; aged twenty-one: married four months. Was admitted into Rainhill Asylum September 22, 1885, suffering from an indurated chancre of one labium, and a small sore on the opposite side, at point of contact. Her insanity appeared to have been of about a week's duration. Mentally she was in a very dull, melancholic state; rarely spoke spontaneously, and could seldom be got to reply to any questions. She did not manifest any delusions, but it was stated that previous to admission she had said that her food was poisoned. She resisted everything very strongly—not merely being examined, but being washed, changed, &c. Though seldom speaking she occasionally fretted or moaned. She remained in the above condition for about six weeks, when she began to improve somewhat, the resistive character passing off, and the condition taking on the form of simple depression. She continued very depressed and taciturn for another four months, but by the end of that time had become fairly cheerful and showed no intellectual aberration. Three months later she was quite cheerful and active, and might be considered convalescent.

The progress of the physical disease may be briefly summed up as follows: The chancre healed five weeks after admission; two weeks subsequently a papular rash appeared all over the trunk and extremities; this was soon succeeded by a pustular eruption, which produced broad, piled-up scabs, bearing a slight superficial resemblance to rupia, on the falling off of which, ulcers were in many cases left, which slowly healed. Ulcers of a serpiginous character also formed on all parts of the body and produced extensive loss of tissue in different regions. Seven months after admission the greater number of the sores thus produced had healed, and patient was much improved in health. Four months later all the sores had healed with the exception of one or two on the scalp and one on the leg. Mentally the patient was at this time quite convalescent, and might have been discharged had it not been thought advisable to detain her until all signs of physical disease had disappeared. Fourteen months after admission all the sores had healed with the exception of one on the outer part of the left leg;

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this, however, now became worse, and necessitated confinement to bed. It had, however, almost healed by December 25, 1886, and patient was again up. Four days later, however, this sore was attacked by erysipelas, which assumed the phlegmonous character, rapidly spread upwards and downwards, affected distant parts by lymphatic infection, attacked the face, and producing great constitutional disturbance, caused the death of the patient in eleven days, viz.: on January 8, 1887. At the autopsy nothing was observed worthy of note; there was a total absence of all signs of visceral syphilis, and the brain itself, including its vessels, appeared perfectly normal to the naked eye.

The specific disease was mainly treated with iodide of mercury, dissolved in excess of iodide of potassium.

REMARKS.—In this case the connection of the insanity with the syphilis was probably two-fold—both physical and moral. In the severe physical disease from which the patient suffered, there was indeed sufficient cause for mental depression, but this nevertheless assumed a distinctly pathological character. It will have been observed that there was nothing in this case to justify the term “Syphilitic Insanity,” for though the insanity was undoubtedly caused by syphilis, there was nothing whatever in the character of the mental symptoms, taken by themselves, which would have raised any suspicion as to the cause of the insanity; the case was on admission clinically one of “resistive melancholia,” and had it not been for the concomitant signs of syphilis, the existence of this disease would not have been suspected. If the phrase “syphilitic insanity” is to have any place in our nosology, it must be shown that there is a form of insanity caused by syphilis which can be recognized by the mental symptoms alone.

MEDICAL JURISPRUDENCE.

INSANITY AS A DEFENSE FOR CRIME.*

BY W. W. GODDING, M. D.

Superintendent of the Government Hospital for the Insane, Washington, D. C.

How far does a man's insanity affect his responsibility? In other words, is it a sufficient defense for crime to establish the insanity of the defendant? Happily solved by some of the Latin nations, among English speaking people this question has been centuries in the asking and, in the apparently irreconcilable conflict between law and medicine, would seem to be as far as ever from a satisfactory answer. On the one hand are the authoritative replies of the English judges to the questions presented by the House of Lords, replies which shape the decisions of our courts to-day. On the other is their masterly review by Ray, still matchless though more than a generation old, and Maudsley's classic on Criminal Responsibility of the Insane bringing the discussion down to the present time; two studies at once so exhaustive and complete as to leave little for us to add. But if there is nothing new to be said why take the time of this Congress in the saying? Because as scientific men to whom the world is looking for authoritative utterances we are bound to make answer to a question that Sphinx-like confronts us each day with a spectacle of the witless victims of its unguessed riddle mounting over scaffolds to their doom. It will not do for us to say that the answer is old and trite and has been overruled again and again from the bench. Content we may be to be overruled again, we are not content to remain silent. This truth, that insanity is a disease and not a *dictum*, we proclaim anew and with all the weight which this World-Congress can give to its utterance. For if words are symbols that rightly interpret thought and not the veriest illusions which juggle with our brains, then insanity must be the mental manifestation of bodily defect or disease and not a question of the knowledge of right or wrong; it can by no possibility become either a metaphysical conception or a judicial utterance; through all its changing types and varying infirmity of will it remains a disorder of the mind from somatic cause, a disease whose existence

*Read before the Psychological Section of the Ninth International Medical Congress at Washington, D. C.

is to be scientifically determined by clinical observation, and which consequently cannot, any more than small-pox, take its limitations from the metaphysical answers of any judges.

It is true that much of the seeming conflict between law and medicine comes from misapprehension of the situation. While the physician reasons about disease, the lawyer talks of the decisions of the court and the answers of the judges, as if these constituted insanity. They are not arguing from the same premises. The courts in their rulings have undertaken to establish, not as has been erroneously claimed, what insanity is, for that is not a legal question, but what degree of mental impairment must be present in the individual before the law will recognize it as an insanity that is a valid defense for crime. This, if we concede it to be a question of law and not of fact, the court has a perfect right to do. Within her exclusive province who shall gainsay the majesty of the law? Like the Oriental princess if she insist that her ice be warmed she must have it so, it is a question of her comfort, not of science. But while as loyal subjects we bow to the mandate of the law, we are not as medical men to warp our science to fit the legal formularies of the hour. When in the individual case before us insanity exists as a disease, and the legal definition takes no cognizance of it, we are to object to the definition, and if as medical men we can agree among ourselves that the insane man by reason of his insanity is not responsible for his criminal acts, and believing teach men so, then when public sentiment has taken shape in this direction we may hope to see the law again "broaden down" by another precedent in recognizing scientific truth.

It is not to be denied that in English speaking nations there is at the present time a popular distrust of the plea of insanity as a defense for crime; in the newspaper parlance of the day it is the "insanity dodge." Herein America the plea has been scandalously overworked. The not-too-scrupulous advocate in the case of his unfortunate client finding no opening for Mr. Weller's "alibi," having no hope to establish a claim of self-defense, and seeing before him no stay of proceedings short of a halter, hunts up an eccentric grandparent in the direct line, some born fool in a collateral branch, the usual fall on the head incident to happy childhood, and with an imposing array of hypothetical expert wisdom he gravely presents the plea of insanity. But this which is only the lawyer's art ought not to blind the expert to the real infirmity where it exists, and justice cannot allow that the disrepute resulting to the plea from its improper use shall in any

way bar from its city of refuge the witless homicide fleeing from that avenger of blood, the too zealous prosecuting attorney.

The plea of insanity then, popular or unpopular, is a right of the accused that has both legal sanction and scientific basis. What is its status in our courts to-day? We may take the great trial of Guiteau as fairly representing their position. With the sanity or insanity of that notorious criminal we here have nothing to do; it is the decisions of Judge Cox as representing the present legal status of the plea of insanity that concern us now. "The legal test of responsibility," says the judge in the very opening of his charge, "where insanity is set up for a defense for alleged crime is whether the accused, at the time of committing the act charged knew the difference between right and wrong in respect of such act." This is the keynote to the whole, the point to which from all the digressions by the way His Honor continually returns. The man must, by reason of mental disease, be unable to distinguish between right and wrong in regard to the act in question, that it is contrary to human law or wrong in itself. This fairly states the present position of our judges on the question of the criminal responsibility of lunatics. I am not forgetting the rulings of the New Hampshire courts to which I shall presently refer, but which Judge Cox, in the charge under consideration cites only to reject, and in so doing is in accord with other judicial decisions. This then is the only insanity which our courts will recognize as a defense for crime, the old, old doctrine of the knowledge of right and wrong. That broad domain of insanity lying outside of this limit, familiar to all medical men, is invisible then to the eye of the law; in that judicial light they are the rays which fall outside the spectrum; no wonder the ancients pictured the goddess blind.

It will not do to overlook the question of the irresistible impulse which Judge Cox in his charge recognizes only so far as to say that "it is a dangerous one alike for court and jury to handle," and then dismisses it as not relevant to the case in hearing. On this question the rulings from the bench are somewhat at variance, but where the fact of irresistible impulse has been clearly established by competent medical testimony, there has been a disposition on the part of the court to recognize that overwhelming power as a tangible something, higher than any right or wrong, and in some plain case, say that of a poor woman struggling against the impulse of puerperal disease, who has at last, despite a full knowledge of right and wrong, in a frenzy taken the life of the babe of

her own bosom, the facts all proven, when the judge comes to charge, somehow he forgets what was so familiar before, that a knowledge of right and wrong in reference to the act is the true test of responsibility for crime; something like a tear stains the hitherto spotless ermine; he talks to the jury of the little we know about the workings of the mind under the control of mental disease; that they are to consider, on their consciences, of the terrible tragedy, whose details are before them, whether it was the act of an insane mother or not. And the jury without leaving their seats find her not guilty, by reason of insanity. How in the presence of a real mental alienation, appealing in its extremity for human sympathy, this bulwark of safety, this noble canon of the law about the knowledge of right and wrong in the insane man, as the test of responsibility for crime, snaps like a pipe stem.

The trouble of our courts is that the judges have made a metaphysical study of insanity; what they most need is to spend a few months in an asylum and make the personal acquaintance of crazy people. They will not then, as Dr. Ray has said, "be guilty of the absurdity of expecting an insane person to act *reasonably* in reference to his delusions."

If the legal definition of insanity does not include that which is clinically observed by the physician the fault is not with the disease but with the definition. Our duty as medical men is to state the facts in regard to the disease and its limitations. The court may make such rulings in regard to insanity in the abstract as it pleases, those rulings do not concern us. When we have presented the facts in regard to the case before us our work is done. If we have given only the truths of science they will remain. The rulings of the Court change. My Lord Coke said: "It is the knowledge of right and wrong." Lord Hale said: "Partial insanity is no excuse for crime." Then the judges listened to Erskine's brilliant plea for Hadfield—in some respects specious as it was brilliant—and the court said yes, delusion is the essential of insanity. So it has come down to our time; each generation modifying somewhat the canons, but still clinging to the old essential dogma of the knowledge of right and wrong.

What is this New Hampshire doctrine which Judge Cox, in the Giteau case considers only to reject as judicial heresy? Why, simply this: "that all symptoms and tests of mental disease are purely matters of fact to be determined by the jury." Then all these so-called canons about a knowledge of right and wrong, these controlling delusions, this irresistible impulse, this infirmity

of will, any or all of these conditions, whether fancied or real, are questions of fact in the individual case for the jury to pass upon. They are not principles of law, and do not come within the province of judicial utterance or decision. Here then have we come to the very truth with which this paper started, that insanity is a disease and not a *dictum*. This New Hampshire doctrine, so consonant with scientific truth, so far in advance of the rulings of English courts, it was hardly to be hoped that it should find present acceptance of the judges. Yet who can doubt that in the coming time, among those fundamental principles, those foundation stones on which the temple of justice shall yet be builded anew, this decision, so clear in its truth as to be crystalline in its simplicity, and so a stone cut out without hands, that this stone which the builders of to-day have rejected shall ere long become the head of the corner?

I shall not live to see it, but he who writes the history of the twentieth century will record the abolition, among English speaking nations, of my Lord Coke's venerable dogma of a knowledge of right and wrong as a test of criminal responsibility in the insane, and science and law will then have happily united in the medical jurisprudence of insanity on some such test question as this, to be left to the jury as a fact for them to determine after carefully reviewing the details in evidence of the crime and the insanity, did the criminal act result directly from the insanity of the defendants? When the disease and the crime stand in the simple relation of cause and effect, and are so recognized by court and medical expert alike, there will be a brushing away of some legal and psychological cobwebs that now festoon the attics of many medico-judicial brains.

There is time for only one or two illustrative cases. I take from the New York papers of two years ago that of young Barclay Johnson, a tragedy premeditated, the pistol purchased, the walk arranged, and mother, brother and sister go forth smilingly together; and seated on the rocks by the beach they look out over the pleasant waters and the sunshine on the bay. Then a pistol shot from the brother, and the mother sinks down fatally wounded; the sister starts up to fly and falls dead with a bullet in her brain; one more shot and the three are weltering together. This letter is found on his person:

GREENWICH, Conn., April 21, 1885.

If I succeed in accomplishing what I think must be done, a word or two of explanation will probably be received with interest. I think I am saving

my mother and sister from an unhappy fate. If there is a just and generous God these two will go to the happiness they deserve. If there is no God then they will simply find their rest * * * * I am conscious of the enormity of what I have done and intend to do, but at the same time I have a suspicion that I have become insane. Why did not some one recognize my weakness, my great need of help, and help me while there was time? But to be fair, I suppose I should say why did I not help myself.

There is said to have been a remaining portion of the letter disjointed and almost unintelligible. The coroner properly found the man to have been insane, the act growing out of the insanity. But suppose the pistol when pointed towards himself to have unfortunately missed its fatal aim, and Barclay Johnson had been arrested and tried for murder. Where would be your coroner's verdict then righteous as it undoubtedly was? The letter and the preparation show the crime to have been as premeditated as Guiteau's, that the enormity of the offense was recognized by him, and the impulse so far from being irresistible was reasoned about, according to Dr. Hammond's studies of these impulses, one that, a crime being committed, should hang him. Ah, judges, doctors, and the "iron rule of the law," we should find you all to concur, consenting to his death on the gallows. Yet apply the common sense rule that is coming; but for the insanity could he have done it? And the coroner was right, and Dr. Hammond and Judge Cox and the rest of us, the men of this generation, are all wrong.

One more illustration. Years ago a man was for a short time under my care after putting or attempting to put belladonna in his wife's tea. His father placed him with me, and in a few weeks took him away. During the time he said but little, conducting himself in the main very well. His wife, very naturally, not desiring his variety of tea left him and brought criminal charges. At the trial a coherent letter was produced in evidence, in which with considerable high-flown contrition, he confessed his crime, and begged his wife to condone an act for which he could offer no excuse or reason. I was unavoidably detained from court when other physicians testified to his insanity. I should have testified that I believed him insane, and that the crime had resulted from the insanity, but that though the mind was weakened by brain disease, he had a knowledge of the criminality of the act. It would not have saved him, for the judge, a noble specimen of the old school, told me in conversation that the letter was proof to him of the man's capacity, it was as he said, "a pretty sane letter." The jury thus charged promptly brought him in guilty. So far as the insanity

was concerned this was sound jurisprudence, at least in our day, but on some legal flaw in the proceedings the man was granted a new trial. Pending this, dying of the brain disease, he took the case to a higher tribunal where the dependence of the act on the insanity as a plea in defense for crime will not be barred. No motive for the crime could be shown; he was proud and fond of his wife. If he had not been insane would he have done it?

The dependence of the criminal act upon the insanity of the individual, this is the pivotal fact on which responsibility turns. Having satisfied ourselves of this in the case that may happen to be before us we may rest contented. The court may still rule otherwise, but in an age to come, better than ours, in justice to society no less than to the offender, insanity will be admitted as an extenuating circumstance even if not received as a complete defense for crime. May we not hope, despite recent illustrious examples to the contrary, that the courts have nearly done hanging lunatics with or without the knowledge of right and wrong? The world may well dispense with a protection that does not protect, with ghastly examples which do not deter other insane men from crime. Society is finding out less objectionable methods for the disposal of its cranks, and history will read better by and by without these impressive execution scenes. Then shall a human justice arise, not timid and blind from instincts of self-protection, but courageous, clear-eyed, just in itself, and so—divine.

ABSTRACTS AND EXTRACTS.

THE ST. LAWRENCE STATE ASYLUM FOR THE INSANE.—Following is Mr. I. G. Perry's report to the Board of Managers of the St. Lawrence State Asylum containing a description of the proposed structure:

Gentlemen :—I have the honor to submit herewith, for your consideration, drawings showing plans and elevations for the proposed buildings for hospital homes for the insane, designed to be located on the extensive and beautiful site known as Point Airy, near Ogdensburg, N. Y., together with a very brief general description of the proposed buildings.

The drawings submitted represent the various buildings so planned as to meet the varied needs for the successful care and treatment of the bodily and mental conditions of the inmates at the minimum cost for maintenance.

Through the kindness of several medical superintendents of large experience in charge of asylums for the insane, also from my personal observation and study of the subject, I am convinced beyond doubt that in the erection of buildings for the insane, it is desirable there should be a much greater diversity of design and interior arrangements, than has heretofore been the custom.

Dr. C. F. MacDonald, with whose assistance I am preparing the drawings for the Asylum for Insane Criminals, has, at my request, very kindly given the plans for the St. Lawrence State Asylum for Insane, a good deal of study, and many of his valuable suggestions have been adopted in the arrangement of the several buildings.

In the arrangement of the buildings, represented by these plans, I have endeavored to carry out substantially the principles which are now regarded by the best authorities on asylum construction as essential to the successful administration of a hospital for the insane, namely:

1. Buildings not more than two stories high, with not less than two stairways from the upper stories, in each building, which shall be conveniently accessible from all parts thereof; the first and second stories to be used respectively, for day-room and sleeping purposes.

2. Buildings for the feeble, helpless, and greatly disturbed classes, to be only one story high, and to have the requisite facilities for night attendance; the buildings for the disturbed class to be located so that the noise therefrom will not disturb the inmates of other portions of the asylum.

3. A sufficient number and variety of buildings to admit of ample classification, without adding to the cost of maintenance.

4. The general arrangement of the buildings to be such as to secure to the patients, as nearly as possible, the conditions of domestic life, and, at the same time, possess the necessary conveniences and appliances for their proper custody and appropriate treatment.

GENERAL DESCRIPTION OF THE VARIOUS BUILDINGS AND THEIR LOCATIONS, AS SHOWN BY DRAWINGS SUBMITTED.

The block plan submitted shows the general lay-out of the grounds, on which are designed to be located five groups of buildings and fourteen detached cottages.

The central and most prominent group, shown by the drawings, comprises twenty-two separate buildings. Such of the buildings in this group, twelve in number, as are for the actual dwellings of the patients are approached by connecting corridors in two directions from the administration building, which occupies a prominent central position.

The buildings in the group above enumerated would present an irregular and interesting facade of nearly 1,900 feet, fronting the broad St. Lawrence River, which forms a great convex curve directly in front of this, and other groups of buildings. The surface of the ground has a gradual descent towards the river, insuring perfect surface and sewage drainage without danger of contaminating the water supply. It would be difficult to imagine a location presenting more lovely views, than are spread out before one from the site selected for the St. Lawrence State Asylum for Insane.

The administration building, as shown by the drawings, is two stories high, with a roomy attic. The building would be of liberal dimensions, and would provide accommodations for the medical staff, and other administrative officers of the institution.

The plan shows the following rooms on the first floor, viz.:

Medical superintendent's office, with office for clerk, adjoining; medical office, reception-room, parlor, steward's office, with office for clerk, adjoining; dispensary, laboratory, trustees' room, dining-room, kitchen, and pantry; china closet, store-room and two toilet-rooms, broad entrances, staircase hall, passageway to kitchen, and a broad, well lighted, longitudinal hall.

The second story is reached by a broad staircase, and contains fourteen chambers, and the necessary clothes closets, bath-rooms, etc. A servants' staircase would extend from the basement to the attic. Comfortable chambers would be provided in the attic for the servants.

On either side of the administration building are three ward buildings, six in all, which would provide accommodations for six hundred patients. These buildings would be two stories high, and are designed to accommodate a class of patients, recent cases, requiring special hospital treatment and close observation, and from which they may subsequently be distributed to other buildings.

There are four associate dining-halls, conveniently located, for the accommodation of all the patients in the six ward buildings. These ward buildings would all have separate and independent entrances, through enclosed vestibules. The patients would be received in cheerful, home-like apartments, conveying to them the truthful idea of a comfortable home, and a place of peaceful rest.

Each of the first two observation or hospital buildings in this group contains on the ground floor, two spacious day-rooms, two parlors, two reception rooms, four attendants' rooms, twelve single rooms for patients, an infirmary, and an associate dining-hall, conveniently located, for the accommodation of the patients; also liberal-sized lavatories, bath and clothes-rooms and water-closets, all of which have been carefully considered with reference to fully meeting the requirements of modern sanitary science. They stand free from the main portion of the buildings, and are approached by short connecting corridors with window openings on either side, providing for direct cross ventilation in each case.

The plans represent in each of the four observation or hospital buildings, two fire-proof staircases, and in the other two buildings, three in each, together with the necessary closets for shoes, and the storage of the utensils required in taking care of the buildings, such as pails, mops, brooms, brushes, etc.

It is intended that the first stories of these buildings shall be occupied in the daytime only, except such of the single rooms as might be required for a limited number of patients, which it is not deemed best to send to the second stories.

The next two observation buildings are of about the same general dimensions as the two first described, although in outline, internal arrangement, and exterior design, they are radically different, an important feature that should be carefully considered in arranging and designing buildings for an institution for the insane, and which, if judiciously carried out, would produce a great variety of accommodations, and overcome the painful monotony which frequently characterizes asylum buildings. It will be seen that the various groups of buildings, as designed, would present a picturesque and interesting appearance.

The second story of the observation buildings would be arranged similarly to the first story, with associate dormitories and single rooms; the space over the dining-rooms would also be divided into single rooms and associate dormitories, which would greatly increase the sleeping-room capacity. The same conveniences in the way of water-closets, bath and clothes-rooms, and lavatories, are provided as in the first story. The plan shows the observation buildings located about ninety feet apart, with connecting corridors which are only one story high.

Located centrally between the observation buildings are four associate dining-rooms, heretofore referred to, extending back from the other buildings, each of ample size to accommodate the patients in the two adjoining buildings at one time.

The last two buildings in this group are arranged for the accommodation of a less quiet class of patients. The plan of these buildings provides four spacious day-rooms with broad corridors, four attendants' rooms, nineteen single rooms for patients, associate dining-room, also bath and clothes rooms, and water-closets, on the first floor. The arrangements of the first and second stories are alike in these buildings, except that the space over the dining-rooms will be divided into associate dormitories and single rooms. Access to these buildings may be had through rear corridors, outside the buildings, by which means the patients in the other buildings would be undisturbed. These buildings are also provided with independent outside entrances.

The six ward buildings, above described, are arranged with a view of a separation of the day and night accommodations, by devoting the greater portion of the ground floors to day-rooms, reception-rooms and parlors, and providing the required number of single rooms for the seclusion of temporarily disturbed patients. The upper stories would be used exclusively for sleeping apartments. The buildings as arranged, it is believed, are well adapted for convenience of supervision, care and treatment of the patients, with the minimum amount of labor and expense.

It is designed to construct the basement walls of all the buildings of unwrought stone, and the walls above the basement of brick. The roofs would be covered with slate. The floors of the lavatories, bath-rooms and water-closets would be constructed with rolled wrought iron beams, brick arches and tile. The minimum amount of wood to be used in the interior finish, and the inner and outer walls and ceilings would all be of fire-proof material, by which construction the buildings would be so nearly fire-proof as to guarantee them against damage or danger to the occupants in case of fire.

Directly in the rear of the administration building, and about one hundred feet from the same, the drawings show a commodious structure, two stories in height. The first story is designed for workshops, and the second story for an amusement hall for the patients. Spacious entrances are provided at either end of the building, which are approached through enclosed corridors. By this arrangement the patients can reach the place of amusement, the workshops or grounds, without passing through the adjoining wards.

Seventy-five feet beyond the last named building, is a commodious one-story structure, containing a kitchen, 47 by 67 feet; bread-room, 18 by 36 feet; pantry, 18 by 34 feet; refrigerator, 20 by 30 feet; employes' dining-room, 27 by 31 feet; bakery, 26 by 40 feet; store-room, 20 by 36 feet. The floors of the kitchen and bakery would be constructed with rolled iron beams, brick arches and tile.

The four associate dining-rooms, heretofore mentioned, are connected with the observation buildings at one end only, otherwise they stand free, thus admitting of an abundance of light and circulation of air. The food would be conveyed to these dining-halls from a central kitchen by means of a provision car, run on tramways through enclosed corridors, without entering the ward buildings.

Adjacent to the kitchen building is a dwelling for the accommodation of employes. Directly in the rear of the kitchen is a commodious building for laundry purposes, and the several workshops required. Near by is a building for carpenter and repair shops, and a separate building for carriage house and stable, also a building to be used as an ice house. At a proper distance from the above named structures is located a building which will contain the necessary steam boilers for warming and ventilating the buildings, cooking, etc.

The structures next under consideration, as represented by the drawings submitted, are for the accommodation of the demented, feeble, helpless and so-called filthy class of patients. The buildings are quite complete in themselves, possessing all the conveniences and appointments required for independent housekeeping.

The apartments provided in the plan for patients are as follows; viz.: Two spacious day-rooms, each 40 by 80 feet, not including the broad projecting bays; two associate dining-rooms, adjoining, of the same dimensions and form, connected with the day-rooms by short passageways. The drawings provide for liberal-sized lavatories, bath and clothes-rooms, and water-closets, connected with each day-room; six attendants' rooms and six single rooms for patients, with water-closets adjoining the associate dormitories for night use.

These buildings are but one story high, and are constructed on the pavilion plan. Each apartment stands free, insuring a thorough cross ventilation. The day-rooms and dormitories are provided with broad piazzas, a desirable feature, especially for the class of patients that would be cared for in these buildings. The plans further provide for a two story building, containing a dining-room, kitchen and pantry, on the first floor, and rooms for the accommodation of employes on the second floor. On either flank, and 100 feet back from the rear line of the pavilions referred to there are shown by the plans, two additional buildings, two stories high, designed for the accommodation of a less feeble class of patients, possessing the physical strength to ascend the stairs from the first stories to the dormitories. The day-rooms in the first story would each aggregate in dimensions 45 by 75 feet. There are 10 single rooms, also lavatories, bath and clothes-rooms, and water-closets, on the first floor of each building. The dormitories and single rooms in the second story are the same in arrangement and dimensions as in the first story. There are two flights of fire proof, broad and easy staircases, and two open fire places in each story of either building. The dining-hall heretofore referred to, is approached from the last named buildings by enclosed corridors. The plan also shows boiler house and workshops.

The above described group of buildings would afford accommodations for 250 patients, which would justify the constant attention of an assistant physician, for whom family apartments are provided.

The next group of buildings under consideration is designed for a physically better class of patients, than the ones last described. The buildings are designed to be two stories high, and are arranged with a much greater proportion of single rooms.

This group consists of seven buildings, five of which will contain two wards each. The sixth building provides for an associate dining-room of the size required to accommodate all the patients in this group, and a spacious kitchen, store-room, pantry, room for fuel, employes' dining-room, and toilet-room; while the seventh, a separate structure, contains the boilers for generating steam for warming and ventilating the buildings, and for cooking purposes. There would be provided in the second story of the dining-hall and kitchen building, liberal accommodations for employes, sitting and sleeping-rooms, clothes and bath-rooms, etc. Two of the ward buildings, have each three day-rooms on the first floor, two of which are 18 by 112 feet; two, 24 by 50 feet; and two, 22 by 36 feet. The other ward building has one day-room, 25 by 57 feet, on the first floor, making seven day-rooms in all, and each is provided with a spacious open fire place.

The four ward buildings contain, on the first floor 40 single rooms for patients, and three attendants' rooms. The arrangement on the second floors is designed to be about the same as on the first; that is there are the same number single rooms for patients and attendants. The associate dormitories would be directly over the day-rooms, and of the same size. It is designed that the second story would be used for sleeping apartments only. At the end of one of the projecting pavilions, the plans provide for suitable living apartments for an assistant physician.

Conveniently and properly located are two separate buildings, which would contain lavatories, bath and clothes-rooms and water-closets. These build-

ings would be reached from the main structure by short connecting corridors, insuring thorough cross ventilation. The day-rooms in the first stories have a combined floor space of 10,500 square feet. Allowing fifty-five square feet of floor space per capita in the first floor only, this group of buildings would provide accommodations for 191 patients in the day-rooms, and forty in the single rooms in the first story, making total accommodations for 231 patients. In case the story should be twelve feet high; there would be 660 cubic feet of space per capita in the day-rooms, and an average of ninety eight square feet of floor space, or 1,176 cubic feet, in the single rooms, which with suitable means of ventilation, is believed to be sufficient. There is in addition 1,328 square feet of floor space in the corridors, and eight attendants' rooms, each containing 100 square feet of floor space.

The main and central entrance to the building is 16 by 24 feet. Adjoining this entrance is a reception-room, 14 by 20 feet, a medical office, 14 by 20 feet; also three attendants' rooms, each 10 by 14 feet, on either side of the entrance.

There are seven additional outside entrances, all of which open into enclosed vestibules, as a protection in cold weather. The plans provide for six fire-proof staircases, leading from the first to the second story, all conveniently located.

This group of buildings would be provided with broad piazzas, and would possess the advantages required for the most convenient and economical supervision and maintenance, a very important consideration in the construction of buildings for the insane.

It will be seen on examination of the plans, that the various ward buildings are so located in relation to each other that the occupants of any one ward cannot annoy or excite those in neighboring wards.

The plans contemplate a fourth group of cottage buildings, consisting of three two-story buildings for the accommodation of patients, and a separate building for dining-hall, kitchen, store-rooms, refrigerator, etc., in the first story, and accommodations in the second story for employes. These buildings stand free from each other, about seventy-five feet distance apart. They are designed for an intermediate class of patients.

The main and front building has three day-rooms on the first floor, containing 3,500 square feet of floor space; these day-rooms would accommodate sixty-four patients. There are nineteen single rooms on the first floor, with lavatories, bath and clothes-rooms, and water-closets, making liberal accommodations for a total of eighty-three patients, provided the second story should be used for sleeping accommodations only. The second story is arranged with associate dormitories over the day-rooms, with single rooms, lavatories, water and clothes-closets, etc., the same as on the first story. The approach from the first to the second story is by two fire-proof staircases, situated near the ends of the building.

On either flank, and receding from the above described structure, are located buildings, each of which has four day-rooms on the first floor, designed to accommodate eighty-six and thirty-six patients respectively, or a total of one hundred and twenty-two patients. Each of these buildings is provided with a fire-proof staircase, and open fire places. This group of buildings would furnish pleasant and convenient accommodations for two hundred and five patients.

The several drawings submitted for detached cottages are for buildings that would accommodate from twenty to one hundred patients each, of the quiet class, whose mental condition is such as to permit of their being cared for in buildings similar to dwelling-houses, or, in other words, on the family plan. These cottages, it will be seen, are varied both in design and internal arrangement, with a view of making the whole interesting, and of carrying out to the full extent the greatest variety of accommodations, especially for the better class of patients, which plan is recommended by the most eminent physicians in charge of asylums for the care of the insane.

It will be seen on examination of the whole plan, that both the arrangement and general appearance of the several groups of buildings and detached cottages combined partake more of the character of domestic architecture, than of the ordinary stately asylum.

It would be advisable, before the work of constructing the asylum buildings is commenced, to erect and equip a pumping station, where indicated on the drawings, for supplying water for building purposes, and for the future needs of the institution.

It would also be advisable to construct a dock, about where indicated on the drawings, for conveniently landing the building materials and supplies for the institution. It will be seen on examination of the coast survey map that the dock is designed to be located some distance from the pumping station, at a point where there is but little, or no current, enabling vessels to land without difficulty. The suction pipe, for supplying water to the pumps, would extend out into the swift current a good distance above where the sewage would be discharged into the river. The sewage pipe would also extend out into the river, where the current is strong, and in the direction that it would carry the sewage away from the banks of the river, avoiding any possible contamination of the water supply, or nuisance from that source.

I would recommend that electricity be used for artificially lighting the proposed asylum buildings, and the grounds immediately about the institution, as beyond question it is the best known method of illumination, especially where power is required for other purposes. The engines required for running the dynamos at night, could be used for other purposes in the daytime. Accidents are much less likely to occur from the use of electricity than from any other means of illumination.

The Board of Managers of the St. Lawrence State Asylum for Insane will please accept my most humble acknowledgment and thanks for entrusting me with the important duty of designing the asylum buildings for the new institution. I fully comprehend the magnitude and importance of the work, and should the general plan submitted be properly worked out in detail, the institution would combine the latest and most approved arrangements and methods of hospital construction, avoiding all the objectionable features of the older institutions.

In conclusion, I can only say, that there shall be no lack of interest and painstaking on my part, to make the whole work a success, and the structures the model hospital buildings for the care of the insane. With profound gratitude, I am,

Most respectfully,

I. G. PERRY.

THE BROWN CASE AND THE BUFFALO ASYLUM.—We extract the following from the annual report of the Buffalo Asylum:

The past year has been prolific in attacks upon asylums and their management. The public press has devoted columns to the sensational recital of alleged abuses, and charged the most serious crimes against the authorities and employes of institutions for the insane. In some cases the occasion has been found in the accidents incident to the care of violent and dangerous lunatics. This asylum has been subjected to a most unjust attack, based upon a death which occurred within its walls.

The facts in brief are as follows: A man sixty years of age, thin in flesh, of slight physique, was admitted to the asylum on the 21st day of March, with a history of having been insane for about six months, with exalted delusions of his own power and such a degree of restlessness and disturbance as led to his being restrained while at home, by a strap about the body, to his chair. He was in the habit of beating his breast with his hands, asserting his perfect health and great strength. After admission to the asylum, he continued restless, moving rapidly about the ward, sometimes with his eyes closed and coat drawn over his head, shouting religious phrases, running against chairs and other furniture of the ward and throwing himself upon the floor without regard to the consequences of his acts. During the week of his stay in the asylum he lost in flesh and strength from refusal to take a full amount of nourishment. At night he was frequently noisy and about his room, and to protect him from injury was placed in a single room without furniture, aside from a bed made upon the floor. Although thus disturbed he was readily controlled and was not violent toward other patients though annoying to them from his habit of putting his hands on and interfering with them, and at no time was there any record of a contest or struggle with the attendants. Late in the afternoon preceding his death he was secluded during the supper hour in a room where the bedstead was fastened to the floor and when visited by the physician was found sitting on the floor with his feet braced against the baseboard of the room and the back of his neck against the foot roll of the bedstead. Upon the morning of his death, he was found by the attendant whose duty it was to care for him, in a weak and feeble condition. Assistance was summoned, and he was bathed and dressed by three attendants and taken down stairs to the lower ward which he occupied during the day. Upon being placed in a chair he slipped out upon the floor. His feeble condition was recognized and he was placed on a bed and a physician summoned, but before he reached the ward the patient was dead.

A post-mortem examination revealed a chronic meningitis extending over the frontal and parietal portion of the brain, a fracture of the spinous process of the fourth cervical vertebra, and of three ribs and one costal cartilage on each side. The ribs were all in an extremely brittle state. The fractured portion of the spinous process did not press upon the cord, nor was there any evidence of injury to it. The fractures of the ribs were all transverse, and there was no penetration of or injury to the pleura or lungs. The physicians and the Board of Managers were summoned and saw the post-mortem appearances. In consultation with the superintendent it was decided to request the coroner to make a thorough investigation. This was

held and continued for several days during a period of two weeks. The decision reached was that "The patient came to his death by injuries received in the Buffalo State Asylum for the Insane, which injuries were received in some manner unknown to this jury."

At the time the Commissioner in Lunacy visited the asylum, made an investigation and arrived at a similar conclusion. About a week later the three attendants who last had care of the patient were arrested on the charge of murder. This was reduced to manslaughter in the second degree, and the bail fixed at \$2,000, which was furnished and they were released, pending an investigation by a justice. This was waived and they were held for the action of the grand jury. An indictment was found upon the charge, without any direct evidence and apparently on the ground of exclusion, as all of the attendants who had had any care of the patient were examined except the three charged with the crime.

The trial was held before the Superior Court of Buffalo in September last, and continued for eight days. There was no evidence to convict the attendants indicted, but proof sufficient to show the probability of the injuries having been self-inflicted. The Judge, Hon. Chas. Beckwith, directed the jury to bring in a verdict of not guilty, which they did without leaving their seats.

CHARGE OF THE HON. CHAS. BECKWITH TO THE JURY IN THE BROWN CASE.—There is perhaps, no misfortune that can befall a man in this world, so great as the loss of his reason. It is an affliction that may fall upon any man, either as a visitation upon himself, or some member of his family, wife, child or parent. It is an affliction which moves deeply the sympathies of the human heart. It is a misfortune too, which seems to be more common in the community than we would at first think. You may have noticed that among the persons who were summoned here to act as jurors in this case a large number of persons out of that list, a surprisingly large number as it seemed to me, testified that they at some time, had had relatives, or friends, who had been inmates of the asylum with which this suit has relation. So it seems that this misfortune is a pretty common one in the human family, and it is not surprising, on that account, as well as on account of the natural sympathies of the human heart, that the community should take an especial interest in a case of this kind; that when any charge is made against an institution of this kind, of cruelty, or misconduct toward the persons in it, the community should be deeply aroused. Nevertheless, gentlemen, it belongs to us—it belongs to the people, to be careful not to indulge in unjust suspicions, but to remember the difficulties which attend the care of a large number of insane persons, and to bear in mind how much better off the inmates of our asylums are than they were before the organization of such institutions, and when those unfortunate persons were left to the care of their friends at home. As Dr. Ordonaux says in one of his decisions, "it is not surprising that the public should deem it impossible, when relatives of an insane person cannot endure his presence at home, that strangers should be kinder and more forbearing with him in the privacy of an asylum." The course which the managers of the asylum pursued in this instance was a

creditable one, an honorable one for them to pursue, that is to say, when death had taken place under circumstances that excited suspicion they said, "Let the officers of the law look into this, we have no secrets: we propose to carry on this institution with publicity; we have nothing to cover up." And it seems to me that it was the proper and just course, just to the institution and the community, and entitled to the commendation of the public, that they should put the case in the hands of the public officers for investigation, for where there is secrecy there is suspicion, and where there is publicity, openness and candor, a confidence grows up between patrons and the managers of the institution and they go on with mutual reliance, with safety and with success. When we approach the examination of a case of this kind it is proper that we should see that the duties which have been assumed by managers and by keepers in these institutions are properly performed, and, on the other hand, we should be careful to see that we are not influenced by any unfounded suspicion, or any passion, or any other influence that may turn the mind from a proper consideration of the facts which are presented to us. We only have to make a fair, candid and careful investigation of the facts and the proofs which are presented to us, and to come to that conclusion upon the facts and proofs presented, which seems to be just.

It has been charged here by the indictment found by the representative of the people, that Mr. Brown, an inmate of the Insane Asylum on Forest Avenue in this city, came to his death at the hands of his keepers or attendants as they are called—the defendants here at the bar. They are charged with manslaughter—with having conducted themselves in such a way, either with anger, or carelessness in the care and management of this party, as to cause his death. If they are guilty of that charge, a verdict should be found against them, and they should suffer the punishment which the law inflicts in such cases. The question has been raised here whether the people have been able to prove enough to satisfy the mind that the defendants are guilty of the charge which has been made against them. This is primarily a question for the jury under our system for the trial of causes. It is for the jury ordinarily to say whether they are satisfied upon the evidence and facts which have been established in the case that the parties are guilty of the offense charged.

[The Judge then speaks of the principles of law involved and of the necessity of establishing the guilt of the accused beyond any reasonable doubt, and after reviewing the testimony presented, continues:]

With the case as it now stands, with the testimony which has been given and facts which have been established, it seems to me that there is no ground upon which it can be safely deduced that those injuries from which Brown is said to have died, were inflicted by the defendants. I do not see any testimony or any circumstance from which we can fairly draw a logical or legal conclusion that they were wrongfully inflicted by the defendants. Of course we may say, and may think, that they may have been inflicted upon him by the defendants, but we can not go outside of the testimony and facts and speculate freely in our minds as to the cause of the injuries, but must confine ourselves to what has been proved in the case. And we have the proof that these defendants had him in their possession but a short time on Monday morning before he died, and we have the proof of experts that

the injuries were inflicted upon him some time previous. But we have no proof who inflicted them, or how they happened to him, but evidence has been given on the part of the defendants tending to show that it was possible for Mr. Brown, under the operation of his insane delusions and efforts, while confined in that room, by placing himself against the bedstead, or under the projection of the window sill, to have inflicted these injuries upon himself. The physicians give it as their opinion that it was possible for him to inflict them upon himself. Now with the proofs furnished in this case before us, upon which it is legitimate for us to infer, that he could have inflicted these injuries upon himself, being an insane man and not knowing what he was about, with some evidence to show a disposition on his part to put himself in shape where he might try his strength and injure himself, we could not be justified upon grounds of mere speculation and mental operation in saying they were inflicted by the defendants. Consequently then, gentlemen, I come to the conclusion that it is a legal, a logical necessity to say, that the case has not been established against the defendants or either of them.

There is a section of the Penal Code of this State to this effect, that if at any time after the evidence on either side is closed, the court deems it insufficient to warrant a conviction, it may advise the jury to acquit the defendants and they must follow the advice.

The advice which I give to you, gentlemen, is, that the case is not made out against the defendants, and they should be acquitted.

The Clerk of the Court then called the names of the jurors and asked them how they found the prisoners at the bar, guilty or not guilty of the offense whereof they stood charged, and the jury without leaving their places rendered a verdict of not guilty as to all of the defendants.

MENTAL AFFECTIONS AND AURAL DISEASE.—Sufferers from noise in the ears are sometimes greatly distressed by the tinnitus, and cases of suicide have been ascribed to sheer desperation resulting from an inability to get relief from the everlasting noise. Ménière's disease and some cases of epilepsy are attributed to disease in the ear setting up changes in the central nervous system. The question is still unanswered whether acutal mental disease, mania or melancholy, may not be produced by aural disease, apart from any annoyance due to tinnitus or deafness. Coarse diseases, such as otorrhœa, suppuration in the mastoid cells, perforations of the drum, polypi, waxy concretions and foreign bodies, are easy of recognition and can be appropriately treated generally by simple surgical methods. But nervous affections due to irradiation from the obscure aural mischief are not always so open to treatment, because the changes in the ear are more subtle, but none the less real. Sometimes an obstruction of the Eustachian tube may be the chief cause of tinnitus, owing to unpoised atmospheric pressure leading to excitation of the labyrinth and acoustic nerve by actual compression. M. Boucheron believes that, besides vertigo, epilepsy, and other nerve troubles, mental disease may be originated, and simple inflation of the middle ear has been followed by a cure.—*The Lancet*, December 17, 1887.

GÄRTNER AND WAGNER ON THE CEREBRAL CIRCULATION (*Wr. Med. Wochenschr.*, Nos. 19 and 20, 1887)—The authors have gained important results by applying to the problems of the cerebral circulation a method of investigation which has been fruitfully employed in researches concerning the circulation in other organs.

The method consists in measuring the amount of blood which flows through an organ in the unit of time—which therefore passes away by the venous system. In this manner, it is possible to draw conclusions as to the innervation of the vessels of the organ concerned, due regard being allotted to certain other circumstances, especially the blood-pressure.

The authors' experiments were performed on dogs. The flow of blood was registered on a hymograph by means of a cannula placed in one of the external jugular veins, which, in dogs, convey the chief mass of the cerebral blood.

As the observations were limited only to one of the many cerebral venous channels, it was necessary to determine how far that limitation might vitiate the experiments. If an impediment to the outflow from the other exit channels were brought about by an increase in the venous pressure, more blood would flow through the prepared vein, and contrariwise with a sinking of the venous pressure. But by making the resistance to the outflow in the prepared vein very small in proportion to that which obtained in the remaining effluent vessels, any error arising from the limitation referred to, and from fluctuations in the extra-cranial venous pressure, was reduced to a negligible quantity.

The arterial blood-pressure also had to be taken into account. It is clear that, the calibre of the brain vessels remaining equal, so much the more blood must stream through them, the higher the pressure under which it circulates. Consequently a fluctuation in the outflow quantity can only be taken as evidence of a change in the calibre of the cerebral vessels, when that fluctuation is not adequately explained by a variation in the arterial blood-pressure.

The influence of the blood-pressure upon the cerebral circulation can be shown by simple experiment; *e.g.* the blood-pressure can be raised by compressing the aorta above the diaphragm. As soon as it be thus raised, the quantity of blood issuing from the cerebral vein increases in an exactly parallel manner to the blood-pressure. This increased outflow continues so long as the raised pressure is maintained, and ceases parallel to the blood-pressure when the compression of the aorta is discontinued. On the other hand, if the blood-pressure be considerably lowered by compression of the ascending vena cava, the outflow quantity immediately sinks; and when the blood-pressure falls under a certain limit, which lies at 30–40 mm. of mercury, the efflux of blood from the brain quite ceases. The same is observed when the pressure is lowered by bleeding.

To control this possible source of error, the arterial blood-pressure was registered throughout all the experiments, by aid of a cannula in one of the crurals.

Certain agents influence very energetically the blood-vessels of various organs through the vaso-motor centre. Such an effect can be brought about in a reflex manner or by toxic means, *e.g.* irritation of a sensory nerve,

administration of strychnine. The vessels of the abdominal organs especially are contracted by such means, and there occurs in consequence a considerable raising of the blood-pressure. It was of interest to see whether the vessels of the brain also took part in this contraction.

If the cerebral vessels be contracted to the necessary degree, the quantity of blood passing through the brain must diminish, in spite of the increasing blood-pressure, as can be very strikingly shown under like circumstances in the kidney. But the experiments proved that no lessening of the outflow amount took place either by the reflex irritation of the vaso-motor centres, or by the toxæmia of asphyxia or strychnine. In all these cases an increase of the blood-stream was regularly observed, and indeed exactly corresponding to the raised blood-pressure in each case.

This increase of the stream-velocity was particularly marked in strychnine-poisoning.

The fact that no narrowing of the cerebral vessels was produced by the irritation of sensory nerves is of special interest, because it stands opposed to the prevailing theory. It has been supposed that the swooning or convulsions following violent sensory irritation are due to cerebral anæmia brought about by reflex contraction of the brain-vessels. The authors' experiments, with intact skulls, have shown that not only no cerebral anæmia appears in those conditions, but, on the contrary, the brain is more richly permeated by blood, in consequence of the heightened blood-pressure.

Concerning the action of narcotics, the authors found that at the commencement of chloroform inhalation, the circulation in the brain is considerably accelerated, and simultaneously the arterial blood-pressure rises. After a short time, which often is less than a minute, the blood-pressure begins to sink, notwithstanding which the outflow quantity remains increased, and often amounts to three or more times the original when the blood-pressure already has sunk to, or below, the level existing before the inhalation. This acceleration of the blood-stream is thus independent of the blood-pressure, and is only to be explained by a widening of the cerebral vessels. If the chloroform inhalation be continued, the blood-pressure may become so minimal that little or no blood flows through the expanded blood-vessels. If the inhalation be stopped and the blood-pressure thereby be allowed to recover, a copious stream again begins to circulate. If the animal awake from the narcosis, there is often a divergence in the behaviour of the blood-pressure and cerebral blood-stream; while the blood-pressure rises, the flow of blood in the brain diminishes, evidently because the vessels, which had been expanded by the chloroform, contract again to their normal sizes, and thereby neutralise the accelerating influence of the heightened blood-pressure.

No similar property seems to belong to morphia. The fluctuation in the blood-stream which appeared after morphia injection ran an almost parallel course to the variations in the blood-pressure. At first a transient rise of blood-pressure was sometimes observed, and, corresponding thereto, an increase of the outflow; then the pressure sank below normal, and concurrently the blood-circulation in the brain was slowed—again to be increased as the pressure rose.

Experiments with amyl nitrite produced a manifest expansion of the cerebral vessels, though to a less degree than chloroform.

The effect of direct electrical stimulation of the brain cortex in the motor

area was not in harmony with the common theory, which is based upon Kussmaul and Tenner's researches. That theory supposes that an anæmia of the brain, consequent on contraction of the small vessels, exists during an epileptic fit, and that the loss of consciousness is due to the cerebral anæmia.

The constant result of thus directly exciting the cerebral cortex, in the authors' experiments, was a considerable acceleration of the circulation through the brain. This acceleration was usually not observed until 10.30 sec. after the commencement of the stimulation, although the latter, in most cases, was immediately followed by a considerable rise of blood-pressure. At the beginning of excitation there may have been present a slight contraction of the vessels, which delayed the appearance of the quickening of the brain-circulation corresponding to the increased pressure. This point was not fully elucidated by the researches.

The authors further ascertained that the quickened circulation, due to the cerebral irritation, may by no means be caused by the raised blood-pressure alone. It was of longer duration than the latter, and often when the blood-pressure had sunk to the normal or subnormal, the efflux had remained greatly excessive. The acceleration in the blood-stream was quite as distinctly marked in some cases, in which no increase of blood-pressure followed the electric irritation. Thus it was shown that an active hyperæmia of the brain, especially pronounced at the onset of the convulsions, results from electric stimulation of the motor area.

No effect on the cerebral circulation was caused by irritating the divided vago-sympathetics.—*Brain*, July, 1887.

MELANCHOLIA AFTER URETHROTOMY.—Dr. Edgar Kurz reports, in *Memo-rabilien* of August 5, 1887, two cases in which internal urethrotomy was followed by temporary melancholia. The operation was performed without accident, and resulted in a cure of the stricture in each instance. The melancholia was noticed shortly after the operation, but disappeared completely within a few weeks. The author states that a colleague related to him a similar case that he had observed in his own practice.

A CASE IN WHICH PARALYSIS OF THE SPHINCTERS AND INCONTINENCE OF URINE WERE, TOGETHER WITH TORPID INTELLECT, THE CHIEF SYMPTOMS OF SYMMETRICAL DISEASE OF THE CORPORA STRIATA.—In *Brain* for July, 1887, Dr. Jonathan Hutchinson reports the case of Mr. S., manager of a bank, aged 54, who consulted him on account of incontinence of urine which occurred almost solely in the daytime. The trouble was of six weeks' duration. The prostate was but slightly enlarged. The sphincter ani was quite relaxed. There was no noticeable weakness nor any alteration of sensation in the legs. He had no headache. He looked well and seemed inclined to make light of his ailments. A few days later, one of his colleagues in his place of business called and gave a similar account. He said that Mr. S., from being an austere and precise man, had become the reverse, that he was more effusive and jocular in a manner quite contrary to

his wont. Above all that he was constantly passing his water while sitting in his office-chair without seeming materially annoyed by it.

A week later when seen by Dr. H., the following points were observed: Knee-jump good, pupils acted well and he could stand well on either of his heels or tip-toe. His memory and intelligence seemed perfect but he smiled too much and appeared too cheerful. In less than two months from the time he first consulted Dr. Hutchinson he died suddenly after a night of unusually heavy sleep.

A post-mortem examination revealed a soft pink semi-gelatinous growth on the inner side of the left corpus striatum, which bulged into the ventricle. A little to its outer side, in the white substance of the hemisphere, were two small islands of similar structure, as large as cherry-stones but quite ill-defined. There was no softening around any of these growths. At this level the opposite hemisphere appeared healthy, but above the corpus, or in its upper part, a large softened area broken down by blood clot, but having, at one part, an indistinct lining membrane. A clot the size of a walnut extended from this patch of disease into the ventricle.

There was no trace of disease at the base of the brain, nor in the pons or medulla.

A microscopical examination showed the tumor to be a mixed round and spindle-shaped sarcoma. Dr. Hutchinson explains the apparent remarkable immunity from limb paralysis by suggesting that the symmetry of the disease had been productive of bilateral weakness which was less easy of discovery than unilateral weakness would have been.

HYDROTHERAPY IN MENTAL DISEASES.—Dr. Theo. H. Kellogg, formerly physician in charge of the New York City Asylum for the Insane, read a paper on this subject before the American Neurological Association at its thirteenth annual meeting. After presenting the historical aspect of hydrotherapy Dr. Kellogg analyzed the results of twenty-two hundred Turkish baths administered in various forms of insanity. The most useful indications which it fulfilled were, first, as a vaso-motor stimulant in all conditions of capillary stosis as found in the bluish extremities of melancholia, attonita, primary dementia, and secondary forms of insanity, with torpid circulation and muscular inaction; and secondly, as a diaphoretic and desquamative agent in certain cases of melancholia, with suppression of the glandular functions of the skin. In the class of cases mentioned there was often not only an improved circulation and return of subnormal temperature to the mean of bodily heat, but also a generally increased nutrition and an actual gain in weight.

He found the Russian bath (which may be improvised by placing the patient in a chair or a bed, with hoops covered by a blanket, under which vapor is conducted) a strong nervous stimulant, increasing arterial action and diaphoresis, diverting the blood to the surface, and answering in the main the same indications as the Turkish bath.

Of the ordinary forms of baths the cold bath, ranging from forty to sixty degrees Fahrenheit, although considered a heroic proceeding, might be undertaken without hesitation, while carefully watching the pulse and the

state of the thermometer placed in the rectum, in conditions of hyperpyrexia occurring in general paresis, status epilepticus, puerperal mania, typhomania and in rare cases of acute delirious mania.

Cool baths, varying from sixty to seventy-five degrees Fahrenheit, might be used to reduce temperature, or simply with a view to allaying nervous irritability. Tepid baths, from eighty to ninety-five degrees Fahrenheit, afforded relief in cutaneous irritability and perverted peripheral sensations, besides serving a useful purpose as hypnotics. Prolonged warm baths, ninety-five to one hundred degrees Fahrenheit, for from one to several hours, might be employed with benefit in acute insanity and sthenic mania. Brief hot baths, 100 to 105 degrees Fahrenheit, were useful in angeo-paretic conditions, with subnormal temperature.

Wet packs might be employed, both hot and cold, for diaphoretic and antipyretic purposes. Shower baths were dangerous and to be used with caution even in vigorous patients.—*New York Medical Journal*, Oct. 15, 1887.

MENTAL AFFECTIONS ASSOCIATED WITH CHRONIC BRIGHT'S DISEASE.—

At a recent meeting of the Philadelphia Neurological Society, during a discussion on the above topic, Dr. Wm. Osler said: "It is well known that certain mental phenomena occur in connection with chronic renal diseases, besides simple uræmic coma. I have reported one case of violent mania in a man aged forty-two years, the subject of Bright's disease. When brought to the hospital he had been maniacal for three or four days. He subsequently became comatose and died.

A very interesting case was recently under my care in the University Hospital. He was admitted on Tuesday. I saw him on Saturday. He was then quiet, in a semi-dozing condition, but could be aroused, and gave a very interesting account of himself. The whole clinical picture was that of chronic interstitial nephritis. There was nothing to attract special attention to his mental state, and I did not regard his condition as critical. That night he got out of bed, in the absence of the attendant, wandered about the ward, and finally jumped out of the window. It was subsequently learned that, before admission to the hospital, he was violent, requiring two or three men to hold him. We were not told this when he was brought in. I was told by one of the physicians who had attended him that the man was full of delusions. He thought that his wife and others were persecuting him. I have no doubt that this was an instance of mental disturbance due to chronic nephritis."—*Polyclinic*, Dec., 1887.

ATHETOSIS.—Dr. Alfredo Rubino of Naples discusses, in some thoughtful articles in the *Riforma Medica*, two cases of athetosis which have come under his care. Both followed hemiplegia due to embolism, and one of the two was associated with multiple paramyoclonus (a muscular spasm differing but little from chorea.) The fact of the athetosis and the paramyoclonus coexisting appears to point to a common origin of the two affections, which may be, as Dr. Gowers has suggested, in post-hemiplegic spasm generally, a peculiar condition of molecular instability of the grey substance of the

brain, which, however, is not recognisable with the means at present at our command. The lesion which causes athetosis may, Dr. Rubino thinks, be situated at any point of the cerebral motor elements; but it is usually in the psychomotor centres of the cortex, in the inner capsule or in the optic thalamus. He does not view athetosis, generally speaking, as forming a pathological entity in itself, but considers it, like hemichorea, which is only another variety of post-hemiplegic spasm, as a mere development of a preceding affection—hæmorrhage, embolism, inflammation, atrophy, &c. Nevertheless, he is prepared to admit that some cases may be true essential neuroses, especially as it is sometimes double; and this may, perhaps, bear the same relation to the more usual single form that chorea does to hemichorea.—*The Lancet*, November 26, 1887.

PROGRESSIVE SPASTIC ATAXIA.—Dr. C. L. Dana, in a paper read before the New York Academy of Medicine, states that there is a class of cases, not very rare, in which the symptoms coincide in a measure with those of locomotor ataxia, but in an equal or greater measure with those of spastic paraplegia. Until recently no attempt has been made to study these cases systematically and classify them from a clinical standpoint. In 1885 Dr. Irmerod collected twenty of such cases, (*Brain*, April, 1885,) and analyzed them. The symptoms pointed to a combined lesion of the posterior and lateral columns. In 1886 Professor Grasset (*Archives de Neurologie*, 1886, Nos. 32, 33, 34) collected thirty-three cases in which autopsies had been made. Combined sclerosis of the posterior and lateral columns was found. In looking up the subject Dr. Dana found accounts of eleven cases in addition to those reported by Grasset, making, with the two cases which came under his own observation, a total of forty-six. From an analysis of the clinical symptoms and the post-mortem conditions in these forty-six cases the following conclusions are reached:

I. (a) There is a class of cases suffering from the milder symptoms of locomotor ataxia, such as ataxia, slight pains, paræsthesia, sexual and bladder weakness, and also from symptoms of a spasmodic character, such as tremblings in the limbs, spontaneous movements, muscular stiffness, cramps, and some motor weakness. (b) There is also a class of cases in which the symptoms are primarily of a spasmodic character plus some paresis, ataxia, slight sensory troubles, and vesical weakness. In these two classes of cases the lower limbs are primarily and chiefly affected.

II. These cases form distinct clinical types which it is important to recognize both for prognosis and treatment.

III. The name given cannot yet be based on the pathological anatomy, since combined sclerosis is found in diseases running various courses. The nearest approach to accuracy would be to call it a "combined fascicular sclerosis," this representing the typical class. Clinically the disease may be known as progressive spastic ataxia or ataxic paraplegia.

IV. The typical anatomical changes consist of a degeneration of the thin, long fibre-systems of the cord, viz., the pyramidal tracts, the cerebellar tracts, the antero-lateral ascending tracts, and the columns of Goll. Being primary, this does not necessarily involve their whole length, and it is most

marked in the dorsal region, where the mixed lateral columns often become involved. The disease is not always primary, but may originate from a dorsal myelitis or a syphilitic cord disease. It then runs a sharper course. The typical tri-fascicular lesion has in rare cases produced ataxia with a flaccid paralysis.

The disease has a long duration. It is less painful than true tabes, and it involves the eyes and the organic centres to less extent than does tabes dorsalis.

VI. It is diagnosticated by the presence of the spastic symptoms in conjunction with ataxia, by mild sensory disturbances, bladder and sexual weakness; by an absence of extensive involvement of organic centres until very late in its course. It has to be diagnosticated from pure tabes, primary spastic paraplegia, certain forms of chronic hydrocephalus, Friedreich's disease, chronic hydromyelus, and dorsal myelitis.

It is especially difficult and important to differentiate it from transverse myelitis, many cases of spastic ataxia having, I believe, been mistaken for that disease.

THE WEIGHT OF THE CEREBRAL HEMISPHERES IN THE INSANE.—Dr. E. Marandon de Montyel, physician-in-chief of the insane asylum at Marseilles, summarizes a contribution to the study of the cerebral hemispheres in the (*Annales Médico-Psychologiques*, November, 1887,) in the following conclusion:

1. Among the insane of all classes inequality of the cerebral hemispheres is the rule, equality the exception.

2. In neurotic insanity (*la folie névrosique*) the right hemisphere preponderates, while in paralytic dementia, by reason of the greater localization of the lesions on the right side, the preponderance is in favor of the left lobe.

3. Sex does not appear to exercise a perceptible influence on the predominance of either hemisphere.

4. The inequality of the hemispheres in the insane is as marked as it is frequent; the differences in weight reach high figures.

5. These differences in weight increase from neurotic insanity to paralytic insanity, from paralytic insanity to idiocy and from idiocy to epileptic insanity.

6. To avoid errors due to advanced age in cases of neurotic insanity, it is important to confine one's operations to insane persons under sixty at the time of death.

7. The predominance of the right lobe in neurotic insanity increases with the age of the patient, its maximum of frequency occurring between the ages of 50 and 60.

8. In neurotic insanity the most marked differences in weight between the two hemispheres is met with in senile insanities.

9. In the insane the differences in the weight of the cerebral hemispheres far exceed, in the great majority of cases, those found in the case of persons of sound mind.

BOOK REVIEWS.

The Morphine Habit and its Treatment. (*Die Morphium sucht und ihre Behandlung.*) Dr. ALBRECHT ERLENMEYER. Third edition. Published by Ludwig Heuser, 1887. pp. 463.

The third edition of this valuable contribution to our knowledge of the toxic psychoses, appears most opportunely for American readers. Within the year, the most diverse opinions have been expressed by prominent neurologists and others regarding the dangers of that cocaine habit, which is so frequently engrafted on the morphine habit. Some writers have not hesitated to admit that they themselves have become habituated to the use of cocaine, without any untoward results, and it is only a small minority which has consistently kept the danger-signal raised. These will find much consolation in the support they receive at the hands of the veteran director of one of the best and largest private institutions for nervous invalids in Germany. To this special point we shall refer in detail at the close of this notice

Dr. Erlenmeyer's work consists of nine sections. The first deals with the causes, symptoms and nature of morphinism, morphine insanity and the neuroses due to the sudden deprivation of morphine. It is a fine specimen of clear concise German, in favorable contrast with several recent contributions published in the same tongue, whose confused and involved text is altogether disproportionate to the erudition displayed. Briefly the author ascribes the morphine habit to bodily diseases and mental states which call for the medicinal use of the drug, such are neuralgias, migrine, the lancinating pains of tabes, those of gout, rheumatism, biliary and renal calculi, painful amputation-stumps, asthma, habitual vomiting, sea-sickness, and the various disorders complicated by insomnia. Of mental causes he cites hypochondriacal and melancholic depression, agoraphobia, nervous prostration, hysteria, persecutorial paranoia, and finally curiosity, a vice which has seduced many medical men. It is a regrettable fact that those who treat disease and manipulate the means of treatment, furnish the larger number of recruits to the ranks of morphiomania. Physicians, druggists and nurses are disproportionately represented among Dr. Erlenmeyer's cases. The mode of taking morphine and the insidious development of the habit is next described. Dr. Erlenmeyer is no extremist, and does not designate every patient who takes morphine as an habitué. He cites the case of one who took the drug for attacks of precordial terror whenever necessary, and never developed a craving for it, and refers to that common experience in insane asylums, where the morphine treatment having been instituted for melancholic and other states and continued for months, its sudden discontinuance is neither followed by craving nor reactionary depression, at most a diarrhœa subsiding after a day or so. He consequently finds it desirable to define the morphine habit more narrowly than the writers of popular tracts on the subject. The definition given is as follows: The morphine habit* consists in addition to the morbid state induced by chronic morphine poison-

* Strictly "Morphin-sucht" means morphine craving.

ing in an aimless and morbid craving for morphine as a stimulant and enjoyment, and not as a curative agent. He rejects the terms "morphine disease," "morphio-mania" and "chronic opium poisoning," inasmuch as they do not cover both terms of the required definition.

Under the heading "Morbid Anatomy of the Morphine Habit," we find the cicatrices produced by the hypodermic injections accurately described. The author states that those who have mastered the principles and practice of antiseptic hypodermic surgery, avoid these tell-tale symbols of their habit, cicatrization occurring only with unclean or not strictly aseptic solutions and needles. As regards morbid changes in the inner organs, Erlenmeyer is unable to cite his own observations. He is inclined to doubt that fatty heart, or hypertrophy of the left ventricle found in deceased morphine habitués, were attributable to the morphine alone. He has never found signs of fatty heart unless there were either a general fatty bodily state or alcoholism in addition. Death from the morphine habit alone is rare, when it thus occurs it is explained by the general cyanotic and œdematous condition, the bronchial catarrhs, and particularly by pulmonary œdema and heart-failure.

Clinically the author discriminates between the toxic and the "abstinence symptoms," which latter are in their milder form present at times even during the toxic period. Of the former he enumerates paresis of the intestinal tract and bladder, and ataxic disorder of the lower extremities; decrease of sexual power, occasionally preceded by a brief period of sexual excitement. The impotence is of physical and not of psychical origin, it is partly due to deficient tone of the erector nerves, and partly to the defective or suspended secretion of semen. Some patients escape this complication, while in others it is not attributable to the morphine, but to the spinal disease for which the latter is taken. In females, amenorrhœa and sterility result, though cases are known where pregnancy occurred and was completed to the full term, in some cases a healthy, in most a decrepid or idiotic offspring resulting. Naturally, children born of a morphine habitué suffer from the deprivation of the drug which previous to birth, reach them through the maternal blood supply, and a number of cases are cited where morphine in gradually decreasing doses had to be given to such children to keep them alive. The secretions generally become arrested, saliva, the digestive fluids, and the product of the sebaceous glands are sparsely secreted, the former two accounting in part for the disturbed assimilation, the latter for the dry, harsh skin. The secretion of the sudoriparous glands, on the other hand, is greatly augmented in a certain series of cases. Erlenmeyer finds two classes of patients, those who manifest this increased perspiration usually have a reddish and even turgid complexion, while those who do not, have a dry, pale skin. Sometimes the hair turns rapidly gray, otherwise healthy teeth drop out, and the enamel becomes brittle. The notorious narrowness of the pupils which betrays the patient to the penetrating examiner, is often masked at the time of the examination by the patient's previous self-institution of atropine. Levenstein's claim that an intermittent fever is produced in morphine habitués is denied. The author admits that several of his patients described such a state to him, but he never saw it himself. The reviewer has observed distinct chills, regularly occurring at eight to nine in the evening in a case of rapid reduction. By taking the full accustomed

dose, it could always be avoided. It was in this case therefore an abstinence phenomenon.

Notwithstanding the presence of glycosuria in acute morphine poisoning, it does not occur in the chronic form. Nor has Erlenmeyer been able to confirm Levenstein's claim that it produces albuminuria.

The mental symptoms, comprise drowsiness, loss of intellectual power—which never occurs except after the use of high doses for years—and blunting of the memory. The affections become dull, less attention is paid to social observances and personal appearance, and the moral sense deteriorates most markedly. At first, and this remains the exclusive phase of moral perversion in most cases, the mendacity and deceit of the patient are only manifested in the concealment of his habit, the hypocritical affectation of reform and the obtaining of the one object of his existence: more morphine. The self-deceptive hypocrisy of these patients is nowhere better illustrated than in the very institutions to which they resort for cure. Doctor Erlenmeyer found morphine sewed into the seam of a coat-collar, concealed in pasted bank-notes, under plasters next the skin and in Eau de Cologne bottles. We question whether the comparison with "moral insanity" here suggested by the author is a very happy one. The designation of the mental state as a whole, as a precocious artificial senility seems more appropriate.

The mental diseases, properly so-called, produced in morphine habitués are attributable to two sets of causes: first to the chronic intoxication itself, second to deprivation. The prognosis of the former is bad, of the latter favorable. The former show a tendency to dementia, and usually begin as a hallucinatory paranoia of the persecutory or expansive kind. Individual symptoms, such as characterize these states, are often found in patients not yet distinctly insane. Thus some are habitually suspicious, and their suspicion is usually directed to the supposed fact that they are watched, that their vice is suspected, and that their secret communications with the purveyors of their drug are being betrayed by letter carriers and messengers.

The important symptoms developed during and after the deprivation of morphine, are considered under two heads, according as they are produced by the sudden or by the gradual withdrawal of the drug. The former is marked by collapse, usually occurring on the second or third day, and rapidly recovered from in mild cases. The same form may terminate fatally. Tremor of the hands, resembling that of the alcoholicist who has "sworn off," and diarrhœa occur in addition. Erlenmeyer differs from Levenstein, who regards the collapse as due to the deficient nourishment, exhausting diarrhœas and insomnia, and designates it as the direct result of the sudden withdrawal. The strong argument in favor of Erlenmeyer's view is, that the collapse as well as its epiphenomena can be instantly dispelled by a dose of morphine. This could not be the case if they were attributable to general depression and malnutrition.

The delirium which often accompanies sudden withdrawal, is justly compared to delirium tremens. The differential diagnoses between the two is based on the directly observable features, enumerated in the subjoined table, and by the indirect method, namely, the observation of the scars left by the hypodermic needles.

	<i>Delirium Tremens.</i>	<i>Abstinence. Delirium of Morphine.</i>
1. Mode of Origin.	Spontaneous, or excited by injuries, acute febrile diseases.*	Only originate by deprivation.
2. Tremor.	Decreases at the acme of the delirium.	Increases as the delirium develops.
3. Effect of resumption of toxic agent.	Alcohol increases the disturbances, or at least does not arrest them.	Morphine arrests the disturbances.
4. Duration.	Several days or weeks.	Rarely exceeds forty-eight hours.

Slow deprivation is accompanied by facial twitching, tremor, a feeling of weakness, sometimes by actual paralysis, the abductors of the eyes and the pupils particularly showing such. In some cases optic phenomena show a remarkable persistency, occurring long after the more active symptoms have subsided. They depend on retinal anæmia according to Erlenmeyer. To this we would make one exception: the scintillating scotomata, occasionally observed and mentioned by the author. The current opinion refers this symptom to some nutritive disturbance of the occipital cortex, or possibly of the infra-cortical optic centres. Much more unpleasant to the patient are excentric sensations, cramps in the calves of the legs, neuralgic states, hemicranias,† paræsthesias, singular vesical sensations, urethral pains in the male, and uterine colic in females. The very sensory perceptions which had been dulled during the toxic period, become abnormally refined by abstinence, unpleasant odors, chromatopsia, photopsia, and tininitus are common. Head congestions are common, irregular variations in the rate of pulse and respiration are usually noted. There is always some evidence in the sphygmogram of vasomotor weakness and diminished pressure; indeed the sphygmograph is really a detective of morphine habitués. The tracing in the withdrawal period is characterized by a high rebound and a low elasticity. The injection of a dose of morphine, in a few moments, reveals increased tension and decrease of the rebound wave. Almost all the functions suppressed or hampered by the poison, announce the lifting off of the weight that held them down, by exaggerated utterances; diarrhœa, sialorrhœa, profuse sweats in those who had a dry skin, (a dry skin in those who had profuse sweats) and nocturnal emissions with increased sexual desires. Mentally, timidity, restlessness, emotional mobility, subdued deliria are noted in the majority and may increase to constitute a veritable psychosis, either transitory, which is the more common case, or lasting for weeks and months. We miss an adequate description of the psychical character of patients suffering from insanity following the slow withdrawal of morphine, as well as of the chronic delusional insanity which sometimes follows. We have observed a striking instance of the former in a physician, who, in attempting to check his habit, heard the roaring of many waters, out of the midst of which his mother's voice spoke to him, then animal and

* There is a true abstinence delirium in drinkers, the result of sudden withdrawal, and improved by a "hair of the dog" that did the biting.—REVIEWER.

† Scintillating scotomata occur with non-toxic hemicrania; hence the explanation of the same symptom in morphine withdrawal must take the similar association into account, and suggests a similarity in nature.

diabolical visions appeared, and notwithstanding the resumption of morphia, deepened until a stuporous state ensued, in which the patient lay for nine months, scarcely moving as much as his eye. He recovered completely, and subsequently informed me that his obstinate mutism manifested towards me, was because he imagined having received the information that the reviewer "was the spirit of evil embodied." He claimed to have a perfect recollection of every detail that happened during his stupor, and has made a perfect and enduring recovery. A chronic delusional lunatic, whose insanity grew out of a morphine delirium, and whose singular parchment-like skin, piercing eye, and contracted pupil gave him so weird an appearance as to constitute him one of the features of the "show-ward" of an asylum, would stop every visitor who looked at him with the question, "Did you ever see the sign of the cross?" and raising his clothing, exhibit his back, theatrically declaiming "Thou shalt! Thou shalt!"

With regard to treatment, Erlenmeyer objects to the sudden withdrawal plan of Levenstein, on account of the danger of collapse, and to the prolonged slow withdrawal, which he himself practiced in earlier days, on account of the ease with which the patient relapses, becomes discouraged, or hoodwinks his physician, by obtaining the drug in secret. He calls his present plan that of "rapid withdrawal," and individualizes considerably with regard to the initial tailing off dose. From six to twelve days suffice for this plan. The first doses are one-half the amount of the accustomed dose; sometimes this is continued unabated a few days. The largest of these doses is timed so as to fall due in the evening, in order to combat insomnia. As the appetite is always better after a dose, it is advisable to arrange the meals accordingly, in order to get as much food into the patient as possible, against the period when his appetite will fail in consequence of the still further lowering of the dose of his spurious tonic.

The interesting section on the medico-legal aspects of morphinism, is too full of suggestive facts to permit of analysis. Suffice it to say that Erlenmeyer is not of those who as soon as a hypodermic syringe is found in a criminal's trunk, argue his irresponsibility. In the Lamson case some such conclusion was drawn at a distance of three thousand miles from the subject of inquiry.

Cocaine and its abuses are discussed in the fifth section. At first recommended as an infallible panacea against the morphine habit, and enthusiastically lauded to the skies, not only in medical but also in daily journals, it has done more irreparable harm in the brief period of its popularity, than morphine itself. Our author analyzes the claims of Freud that it diminishes the severity of the abstinence symptoms, and finds from that writer's own admissions that this favorable influence is, to say the least, over-rated. Experimentally studied, the effect is found to be limited to the quarter to half hour following the (hypodermic) administration of cocaine. It has a bad effect on the vasomotor system after prolonged usage, is expensive, and at best but an indifferent substitute for morphia. In most patients it produces a dangerous form of insomnia. Soon, jumping from the frying-pan into the fire, a cocaine habit is formed, whose mental results are more rapidly developed, more extreme, and less easily recovered from than those due to morphia. Confusional states, loss of memory, delusions of persecu-

tion, hallucinations of multitudinous objects, due to illusive misinterpretation of multiple disseminated scotomata occur. In one of the reviewer's cases, the patient, a physician, made the impression of being on a "chronic drunk" on his patrons. In another, allegations of jealousy against colleagues far above the patient in position and ability, first directed attention to a condition which culminated in a violent outbreak of hallucinatory delirium and marked moral perversion. Erlenmeyer remarks a peculiar diffuseness in the literary productions of such patients; they are continually attempting to insert additional explanatory clauses. Somatic complications, in the shape of disturbed respiration and cardiac weakening, possibly leading to syncopal seizures are noted. Finally there is a more profound deterioration of the will-power. The morphine habitué is profoundly grateful when his physician announces that he has taken his last dose of the reduction period. Whereas the cocaine habitué is either indifferent or at that very moment contemplates a relapse. The medico-legal consequences of cocainism are most disastrous. Impulsive outbreaks, in which the patient fired his revolver into the windows of his best friends, or pursued imaginary enemies with deadly weapons, are cited by Erlenmeyer from Bornemann's experience. In the appended literature review, the notorious case of the physician who, with his daughter, created a sensation in a hotel located in Central New York, and the instructive case described by Brower, are briefly stated. Erlenmeyer does not, therefore, stand alone in alleging the existence of cocaine insanity. In addition to the confirmatory observations cited, Westphal, Jastcowitz and Heimann observed an acute hallucinatory paranoia. Smidt, who on this head is Erlenmeyer's chief opponent in Germany, alleges that this hallucinatory paranoia is not due to the cocaine alone, but is only found where cocaine and morphia are used together. Erlenmeyer hoists him with "his own petard" by citing Smidt's own cases against him.

This section concludes with sound advice relative to the guarding against relapses. The eighth section comprises fifty histories of cases illustrating the various phases and varieties of the morphine, morpho-cocaine and cocaine habits and psychoses. The last enumerates all the papers on the subject to which the author has had access. The dimensions which this subject has assumed may be gleaned from the fact, that there are no less than two hundred and sixty titles. Dr. Erlenmeyer does not content himself with their bare enumeration, but furnishes a brief abstract of the views or observations contained where valuable. In every way, therefore, as a reliable and intelligent discussion of the subject, as containing a vast amount of the author's clinical experience, as well as embodying the accumulated knowledge of the day, it promises to remain an invaluable aid to students and specialists.

E. C. SPITZKA, M. D.

The Curability of Insanity and the Individualized Treatment of the Insane. By JOHN S. BUTLER, M. D., late Superintendent of the Connecticut Retreat for the Insane, at Hartford, &c. G. P. Putnam's Sons. New York and London, 1887.

As the reflections of a veteran long retired from public service, full of years and full of the wisdom of experience, this book ought to be welcome not merely to physicians but to the general public for whose benefit chiefly

it is apparently written. It might have been entitled the "Curability of Insanity by Individualized Treatment," as all questions of *materia medica* are omitted, and the real subject discussed is the moral treatment, or what the author calls "Moral Therapeutics," and such limitation in the size of asylums as would make the various social and personal details of that kind of treatment perfectly practicable for the superintendent alone, whether with other medical assistance or not.

Dr. Butler fully illustrates, by interesting case histories within his own experience, (all easily duplicated in most hospitals for the insane), what he means by moral treatment, going further perhaps than some into the sympathetic amenities of personal interest and personal influence. Conscious of the absorbing care and large expenditure of time which such a course must exact when falling upon one man, he pleads for hospitals on a much smaller scale than that which the majority of our institutions have already reached. He cites one of the original propositions of the Association in favor of a limit of 250 or preferably 200 patients, as the maximum for "individualized treatment," and he makes the singular claim that three or four such institutions would not together exceed in cost a single one intended to accommodate the same number of patients.

To corroborate this he cites Dr. Ray as having said in 1876 that four hospitals of 300 patients each can be built and maintained at a less cost than one of 1,200 patients. We suppose this question has long since been decided, independently of the fact that the Association felt obliged to raise their maximum to 600, and even that number threatens to become a minimum instead, such has been the rapid increase and accumulation of the chronic insane.

The doctor seems to proceed throughout his book on the supposition that the elements of what he calls "moral treatment" must pertain to the superintendent alone, and that they cannot like other medical prescriptions, be delegated to or administered by assistants. At least one would infer that his limitation of the number of patients under treatment should depend on the practicability of establishing daily close, not to say intimate relations with each individual. If that were so, 200 would be altogether too many. But we can accept all that the doctor says about moral treatment, and even the variety of details by which it is brought home to each patient personally, and still have large institutions, large enough to allow of twelve or fourteen different classifications of each sex, by means of a sufficiently large and properly qualified internal service. The point on which Dr. Butler so much insists, of keeping separate those who exert deleterious influence upon each other, can be more effectually secured in a large institution than a small one. It must not be supposed that any superintendent would expect to monopolise personally those qualities of sympathy, courtesy and interested appreciation, of which he gives so many beautiful examples and of their excellent effects, because those qualities may and often do exist in a degree far superior to the extent of scientific knowledge that accompanies them. In these respects too as well as in other parts of medical administration supervision may be quite as effective, and more useful to the interests of the whole, than too much "individualizing" for merely ethical purposes. A chaplain's influence in this direction, especially as connected with the hospital, may doubtless have a most salutary auxiliary effect of which Dr.

Butler cites striking proofs. But there is danger here of sentimentalism intruding into science, and false sentimentalism too, the abundance of which in one day, has direct relations to this question of insanity. As in former times even lawyers and judges and politicians betrayed a flavor of *sermonising* in their speeches, which sometimes to a critical ear seemed ludicrously incongruous, so the deluge of novel-writing in these days has carried a tincture of romance into almost every department of life, till the reportorial style has become notorious even in the simplest and driest matters of business or science. To be sure we can quite enter into the doctor's natural enthusiasm over the results of his moral treatment or mental hygiene in the case of a lady whose first forenoon was passed on the lawn in private conference as to her history and symptoms: "In due time after she had left recovered, the evidence of her permanent restoration to health and to new purposes of life coming to us through the echoes of marriage bells, was accepted as the natural sequence of that *morning on the lawn*."

But all this aside, we must maintain, that given the conditions of a sufficient medical service, and a proper number of qualified nurses or attendants, a large institution is not less adapted to secure the means of moral treatment than a small one, and in some respects it has superior advantages, especially with regard to those means which occasionally bring them together for entertainment without any closer association than the inhabitants of the same city on similar occasions. But the venerable doctor is on surer ground when treating of the separation of incurable or filthy cases from the ordinary types of acute insanity. His views as to separate institutions, we believe, were repeatedly rejected by the Association, but after all, while the latest phase of opinion is in favor of "mixed asylums," it is not wholly on the "congregate system" contemplated by the Association. Dr. Butler's remarks on this subject are quite in accord with the maturest results of experience. The "annex" or the "Colony System" is fast coming to the front. Our legislatures will certainly favor any plan that promises at once to reduce the cost of care and at the same time to provide for all the insane. To this end it is their obvious interest to utilize the plant of existing institutions for all it is worth; and there is hardly a State Hospital that would not be improved as a hospital, by receiving those inexpensive additions which would enable it to take care of its own chronic insane, as well as to take immediate steps for those uncertain cases which seem to appear and reappear on one side or the other of an indistinct border line.

Twenty-Ninth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Edinburgh: Neill & Co. Transmitted to Parliament, 1887.

As the usual "Detailed Retrospect" is not given in the report of this year, it contains little else than the statistics and administrative particulars of the various institutions. The number of insane under the official cognizance of this board, January 1, 1887, was 11,309, of which 1,739 were maintained at private expense. The distribution was—1, In Royal and District Asylums, 6,326; 2, in private asylums, 128; 3, in parochial, *i. e.* lunatic wards of poor-houses, 2,323; 4, in private dwellings, 2,270; 5, in the general prison, 56; 6, in training schools (for imbeciles), 228. The increase in registered lunatics for 1886 was 100 pauper and 30 private, less than the average for five years

past. No less than 1,361 of the patients maintained at private expense are in the Royal and District Asylums. The admissions for the year were, of private, 433, pauper or public, 1,997, being in all less by sixty-seven than in the preceding year, exclusive of transfers. Besides these, forty-nine *voluntary* patients were received, by a provision of law which the Commissioners testify is attended with no ill effects or disadvantages. The recoveries were, private patients, 177; pauper, 961; the percentage on admissions having increased, except in the case of private asylums. By a statute providing for "absence on probation," since 1862, out of 2,982 patients thus sent out, 530 were replaced before the expiration of their period.

Among the best institutions in Scotland, as shown by this report, are the Royal Edinburgh, the Glasgow Royal, and Glasgow District Asylum, Bothwell. In the last the movement of population is kept up so as to receive all acute cases that apply.

The Principles and Practice of Operative Surgery. By STEPHEN SMITH, A. M., M. D., Professor of Clinical Surgery in the University of the City of New York; Surgeon to the Bellevue and St. Vincent's Hospitals, New York; Consulting Surgeon to St. Elizabeth's Hospital, to the Foundling Asylum, to the Infant's Asylum; New York State Commissioner in Lunacy, &c. New and thoroughly revised edition. Illustrated with one thousand and five woodcuts. Philadelphia: Lee Brothers & Co., 1887.

Dr. Stephen Smith makes the following notes on the review of his work, "Operative Surgery," which appeared in the last JOURNAL:

1. "Any one too who has seen the comfort given by an anterior splint in fractures of the thigh will regret its omission under that head." The text of the work is as follows: "If the fracture is in the shaft (femur) apply coaptating splints, which may consist of several narrow strips of thin band properly padded and of such length as to extend well above and below the fracture; or four sole-leather splints may be used which do not quite touch at their margins, the external and internal embracing the condyles," &c., &c. Fig. 107 shows the complete apparatus, with the anterior splint in position.

2. "The author says: 'In simple fractures [of patella] without complication wiring the fragments gives no better results so far as relates to the usefulness of the limb than the judicious employment of apparatus.' Should this fail he recommends wiring, page 847." The text referred to as recommending wiring of the patella, is as follows: "The patella rarely unites by bone, and there is great liability that by sudden flexion of the leg fibrous adhesions will be ruptured. This defect should now be treated by wiring the patella, after denuding the edges of the fragments." The defect referred to is not a fracture, but rupture of fibrous adhesions.

3. "Why the author says (page 611,) 'the operator inserts the index finger of the left hand to *elevate* the epiglottis and direct the tube into the larynx,' instead of depressing it, we do not comprehend." O'Dwyer, whose operation of intubation was being described, says the operator "inserts the index finger of the left (hand) well back towards the œsophagus, and in bringing it forwards *raises* the epiglottis." Gross (*on Foreign Bodies*) says of the epiglottis, "when *depressed*, generally completely covers it" (mouth of the larynx); depression of the epiglottis would, therefore, defeat the operation of intubation.

BRITISH CORRESPONDENCE.

We are all on this side settled down to sober work again, Intern
but still retaining vividly our impressions of the American Me
holiday and of the kindness shown us everywhere by the Co
medical profession in America. Those who have been across
have brought home many new ties, many kindly recollections,
and a very flattering idea of the immensity of America and
its resources. At the quarterly meeting of the Medico-Psy-
chological in London a few weeks ago, Dr. Savage, Dr. Bland-
ford, and Dr. Langdon Down gave some interesting remin-
iscences of their American holiday, and descriptions of American
asylums. A great many of the asylums were visited by British
alienists, and with rare exceptions, they are very highly spoken of.

The work done by Dr. Cowles at the McLean Asylum Training
School for Nurses, attracted very favorable notice, and is likely Atten
to have some influence in maturing a similar system in this
country. Although the old country is rather slow and con-
servative in its ways, it is sure ultimately to follow a good ex-
ample, and there is a growing evidence of a desire on the part
of asylum physicians to improve the status and education of
their attendants, and to qualify them more thoroughly for their
difficult and trying duties. Dr. Greenlees, at the City of London
Asylum, has begun a course of lectures to his attendants. Dr.
Rorie, at the Dundee Royal Asylum, and Dr. Campbell Clark, at
the Glasgow District Asylum, have organized night-schools in
addition to the ordinary training scheme of their asylums.

Great Britain hastens slowly in the formation of new societies. A Lo
A Neurological Society of London has lately been founded under Neuro
the presidency of Samuel Wilks, M. D., F. R. S., with Sir James Societ
Crichton-Browne, M. D., F. R. S., and J. Hutchinson, F. R. C. S.,
F. R. S., as vice-presidents. The printed list of members presents
a brilliant array of neurological talent, and the success of the
new venture is already assured.

CORRESPONDENCE.

[We can only say, in giving permission for the appearance of the following letter, that if the facts are as stated in regard to the changes made in the management of the hospital, the reflections made upon them can by no means be overdrawn. It may often happen that the pressure of specific complaints may impel people to do their best to sustain a bad system by attempting to evade or remedy the evils incident to it for the time being, but the truth remains that the system itself is not only liable to, but inevitably *produces*, just the evils and abuses that are here moderately enough described. Dr. Buttolph's pamphlet may have been regarded by some as the utterance of one too much personally interested and aggrieved; but the letter here given is probably no more than the testimony that would be rendered by any number of physicians employed in a similar subordinate capacity. We can hardly conjecture what other judgment would be passed by asylum physicians upon such a fact as that the office of matron has been abolished in an institution that contains no less than 400 female patients.—EDS.]

A CHAPTER FROM THE HISTORY OF THE STATE ASYLUM FOR INSANE AT MORRISTOWN, NEW JERSEY.—Mr. Editor: Years ago the greatest authorities on the care and treatment of the insane decided that the superintendent and chief executive officer of institutions devoted to this purpose ought to be physicians. This decision was not reached until many methods of management had been tried and had failed. That it is correct the history of the most successful asylums in every country proves. Indeed, it is so generally adhered to, and so fully endorsed by all actively engaged in work among the insane, that any attempt to place the physician, to whose care the patients are entrusted, in any other position than that of superintendent of the institution in which they are confined, is looked on as a fatal blunder. It was, therefore, doubtless not without surprise, that your readers saw the announcement, by the managers of the State Asylum for Insane at Morristown, N. J., in their annual report for 1884, of their intention to separate the business affairs from the medical department of the institution. All familiar with the history of insane asylums knew that this experiment had been tried before, and, after having failed, had been almost universally abandoned.

A word of warning to the managers was not wanting. They were not to be turned from their purpose, however, and soon proceeded to carry it out. Dr. Buttolph, the venerable superintendent, who for nearly forty years had worked hard and successfully among the insane in the State, was removed from office; the legis-

lature was influenced to change the laws governing the asylum; and in May, 1885, the dual-headed government was fairly inaugurated. The patients and their immediate attendants, medical and otherwise, were put in charge of a chief medical officer, who was entitled Medical Director. All other employés, and the buildings, grounds and farm, with their furniture, fixtures and stock, were put in charge of a chief executive officer, who was entitled Warden.

Perhaps with a warden who would show some inclination to recognize the real object of the institution, and the relation of the medical officers to it, even such a system of government might be made a *partial* success. It has not been the fortune of that asylum, however, to show if this were possible. If the warden had been an ambitious person, with only private ends and aims, he could hardly have succeeded more effectually in alienating the two departments from each other. The medical department was looked on with a jealous eye; any attempt of a medical officer to suggest any measure, or do any act which would have any visible effect on the management of the asylum, was termed, "officiousness;" and soon it was quite plain that the medical department was expected to occupy a subordinate position. The medical director was seldom or never consulted by the warden on any matter whatever. He was simply ignored, and the warden even went so far as to advise the friends of patients on matters of which he was totally ignorant, and which could only be properly dealt with by a medical officer. It is easy to imagine the confusion that resulted from such a state of affairs as this.

In January, 1886, a serious blow was struck at the usefulness of the medical department by the abolition of the office of matron. The asylum was thus compelled to lose the services of a useful and estimable lady, who had worked for the insane of the State for many years, and whose intention to leave at the same time with Dr. Buttolph, had been prevented only by the earnest solicitation of the President of the Board of Managers that she should remain. As every medical man of any experience knows, it was the loss of an indispensable official. In June, the first medical director left, it being generally believed that he could no longer remain and retain his self-respect. He was succeeded by a gentleman who, in spite of many difficulties and mortifications, has stood bravely at his post up to this time. The need of a matron was felt very keenly, and it seemed as though it was impossible to do without her. About this time, however, an

office, unheard of in any other asylum, was created, and the wife of the warden was chosen to fill it, with the title of "Supervisor of the Centre." She immediately assumed many of the duties that had been performed by the matron, and only strenuous efforts of the medical officers prevented her from assuming that official's position on the wards. This being prevented, however, duties were made for her by the discharge of a representative of the medical department, who had attended to the sick and special diet, in the kitchen. By this act, no one was left in the kitchen whom the medical officers could hold responsible for carrying out their orders. During the summer and autumn of 1886, when there was a great deal of sickness in the asylum, proper diet could not be secured for the patients. The warden showed the utmost contempt for the assistant physicians openly, and for the medical director secretly. Their orders were not obeyed, and their requests were met by promises, but seldom by performances. The food provided for sick patients was unsuitable in quality and badly cooked, the clothing of private patients was destroyed in the laundry, many articles entirely disappeared there, and it was hard to keep the wards supplied with linen, or the patients with clean clothing. Necessary repairs and alterations were not attended to, workmen went to and fro on the wards, tearing them up and disturbing the patients, without the slightest reference to the wishes of the medical director. It was useless to speak to the warden; so in October the assistant physicians, putting their resignations into the hands of the medical director, and so signifying their willingness to stand by him in whatever position he might be forced to take, urged him to bring the matter before the Board of Managers. This he did, by formally preferring charges against the management of the business department. A committee of the Board was immediately appointed to investigate these charges. They met in a few days, heard the statement of the medical director, *positively refused to hear any corroborative testimony*, and then the matter dropped. Whether the committee ever reported to the board, or whether that body ever took any action, was never disclosed. Who could blame medical men for becoming discouraged under such circumstances, and resolving to leave an institution which was medical only in name? Practice among the insane is disheartening enough from the very nature of their disease, but when it is handicapped by the very management of the institution, to which the physician looks, in a great measure, for his resources for treatment, it is almost hopeless.

No one will be surprised, then, to learn that, of the four assistant physicians, who were at the asylum a year ago, not one remains now. Two of us left in October last. Matters were a little better then than they had been a year before. Repairs were more promptly attended to, perhaps, and the special and sick diet was more carefully served. Still the medical department was practically subordinate to the other, and was rarely consulted. It had no voice in matters that, unquestionably, ought to be immediately under the direction of a medical officer. No one in the kitchen was responsible to the medical officers. There was no one there who had any intimate knowledge of the needs of the several patients, and so no discrimination was used in distributing extra articles of diet. The supply of milk was less than what the orders of the physicians called for; the food was poorly cooked and served; the grade of flour was poor, and worms were frequently found in the bread and oatmeal. The laundry was badly managed, and sometimes it was hard to get blankets enough to cover the patients, because they had not been returned to the wards.

Since January, 1885, eight physicians have left the asylum, and they are unanimous in condemning the way in which affairs are conducted there. Only a few days ago, too, a physician, who is now there, told me that the same troubles still exist, and that the constant query still is "Who will go next?"

The laws governing the asylum direct that the managers shall appoint a storekeeper, on whom the *heads* of departments may make requisitions for necessary supplies, and who can thus be held responsible for providing the same. Such an official has never been appointed. The storekeeper has always been an employé of the warden, and, for the past year the office has been filled by his own son. The requisitions of the medical director, are sent to the warden's office to be counter-signed, and often articles asked for will not be given by the storekeeper, until he has consulted the warden and received his personal approval.

The above statements are only a few of many such facts, which an impartial and searching inquiry into the affairs of the institution would reveal. That this institution, for which the people of New Jersey have incurred such great expenditure, and which is so splendidly equipped for carrying out on a grand scale the beneficent object for which it was established, should be so crippled, is ever to be deplored.

WILLIAM L. RUSSELL.

26 W. 39th St., New York City,
November 21st, 1887.

BOARD OF LUNACY AND CHARITY,
Boston, Mass., December 13, 1887.

Editor of the American Journal of Insanity:

DEAR SIR:—An article in the *Boston Medical and Surgical Journal* for November 24th, displays so little acquaintance with the actual facts of the case, that it seems proper the State authorities should correct some of its statements. The writer does not “know whether this Act was framed with deliberation or in ignorance.” This lack of knowledge is not surprising; indeed, it is the customary attitude of the journal in question. Characteristic, also, are the writer’s condescending remarks concerning the Legislature of his State. Such an Act was recommended to the Legislature more than four months before it was enacted by the State Board of Lunacy and Charity, which had considered its expediency for several months previous. This recommendation, with the reasons for it, will be found on pages cxlvii–cxlviii of the Eighth Annual Report of this Board; and it is fair to presume that the reasons had weight with the Legislature, as they certainly should have had. Let me quote them:

A great inconvenience has been felt of late years at several of the State Lunatic Hospitals on account of the excess of commitments thereto, occasioned by an unequal distribution of these commitments among the hospitals authorized to receive patients from the courts. This is an evil more easily pointed out than remedied, for any judge is at liberty to commit patients to any hospital he pleases; and few of the judges can be kept informed of the condition of each hospital from time to time, even if they were disposed to regulate their orders of commitment by the convenience of the hospitals. Now that the Westborough Insane Hospital has been opened, and is authorized to receive patients of a special class, a new element of uncertainty appears in the commitments; for it is by no means clear how many patients desiring homeopathic treatment will be sent to Westborough in any given time. We would therefore submit for the consideration of the legislature a definite but not unchangeable method for the distribution of the insane, both recent and chronic, among the establishments which will be in existence during 1887.

The Committee on Public Charitable Institutions took up these recommendations at different times between March 1st and May 10th; and on the last-named day agreed on the form of a bill substantially as it passed. A previous bill, containing most of the provisions, with some others, had been considered by this legislative committee early in April. By that time, it had been found, by four months’ experience, that the new Westborough Hospital would not be fully supplied with patients by the ordinary process

of commitment, and the alternative was presented of filling its wards by the transfer of chronic patients from the other hospitals, or of giving it a share in the ordinary commitments from Suffolk county. Like all new hospitals, it objected to the indiscriminate transfer of chronic patients, and asked for new commitments from the general community. This request was reasonable, and the legislative committee acceded to it by granting the Westborough Hospital a share in the Boston commitments. But it then seemed proper that instead of a fourth part, it should receive only a fifth part of the Suffolk commitments, and the Boston Lunatic Hospital, which was expected soon to have room by the removal of one hundred chronic patients to the Austin Farm Asylum, was also included among the hospitals which should receive alternately the commitments from Suffolk county. These questions were discussed at a public hearing (I think more than once) and some objection was made by the Boston authorities to the alternate commitment to their hospital. No objection like that now brought forward was made, and the discretionary power given to the State Board to exempt patients, few or many, from the application of the law, satisfied everybody that it was a good experimental statute. The bill was therefore reported by the legislative committee, May 18th, passed through the Senate and House without opposition, but also without haste, and became a law June 1, 1887.

Of course any such statute could only be experimental, but the experience of nearly six months has shown its wisdom, and has not suggested any essential modification. The statement in the Boston newspaper, that the pauper insane have no choice but to be sent to Westborough, and there receive homeopathic treatment, during the term assigned to Westborough, is untrue, for any objection to such treatment on their part, or that of their friends, would either lead to their commitment elsewhere, or to their transfer from Westborough to some other hospital by the State Board having authority, and on this Board are two physicians of the old school, and not a single homeopathist, so far as I know. As for the overcrowding at the Boston hospital, that no longer exists, because more than eighty of the chronic patients have been removed to a respectable asylum for that class of patients at the Austin Farm, an establishment of the city of Boston, under the charge of an educated physician. This was done in order to make room at the Boston Hospital for new commitments, such as the hospital district law provided for.

The general working of this new law has been good, and in a State like Massachusetts, where the population is so unequally

distributed, some law of this kind seems quite necessary, in order to equalize commitments, and to secure to those asylums which attempt the care of recent cases exemption from overcrowded wards, such as have been seen at the Danvers, South Boston, and Taunton asylums within the past three years. All the Massachusetts hospitals now experience relief, and I am quite sure that none of them have any reason to complain, or have complained, of the effects produced by the new law.

Whether the State of New York needs a similar enactment must be left to the judgment of those who supervise the execution of the commitment laws there. It is evident to me, however, that some provision for disposing of the great surplus, both of recent and chronic cases, accumulated in the asylums of New York city and Kings county is urgently needed. Every great city furnishes a disproportionate number of the insane, and unless the State law permits these persons to be sent forth into country districts, the city asylums inevitably become crowded, and the standard of treatment therein is lowered. I have seen this in former years, and recently, both in New York and Philadelphia; and it is partially true of smaller cities like Brooklyn, Buffalo, Albany, Rochester, Syracuse, etc. A district system in New York should therefore provide in some way for relieving these cities of their accumulation. The great asylums at Binghamton and Willard do this for some of the New York cities, but not for the largest ones, and it is plain that some district system must sooner or later be adopted to prevent the over-growth of these very receptacles for the chronic insane, if for no other reason. For the reception of recent cases, small districts, allowing the asylums to be easily accessible, seem to furnish the best arrangement.

F. B. SANBORN,
Inspector of Charities.

ASYLUM FOR INSANE, TORONTO, ONT.,
October 20, 1887.

To the Editor of the Journal of Insanity:

DEAR SIR: On page 270 of the JOURNAL OF INSANITY, it is said I recommend for neuralgia, "quinine and whiskey." The reporter, type-setter or proof-reader who put whiskey in the place of arsenic must be a countryman of my own, and sees in whiskey a panacea for all ills. When Tam O' Shanter was "glorious" from whiskey and "o'er all the ills of life victorious"—hence it must scalp neuralgias. I accept the improved therapeutics, and will bestow on my revising friend my fatherly benediction.

Yours truly, DANIEL CLARK.

EDITORIAL NOTES AND COMMENTS.

FOURTEENTH ANNUAL REPORT OF THE STATE COMMISSIONER IN LUNACY.—The Report of the State Commissioner is always valuable, for the complete, systematic and lucid view of the whole system of provision, both charitable and private, for the insane population of the State. The clear-sighted ability of Dr. Smith has already so utilized his experience as to enable him to give, in the most intelligible and satisfactory manner, an interior view of the workings and results of the whole lunacy administration of the State. Of course it is hardly necessary for us to follow his analysis of the voluminous statistics presented, in the case of each institution, but we may be permitted to indicate some of the salient facts, and cull a few of the weighty suggestions or reflections which his exceptional opportunities of knowledge have enabled him to make.

It appears that in the twelve years since 1874, the number under care has nearly doubled—from 6,975 to 13,610: the average annual increase in admissions being about 650, equal to the full accommodation of the State asylums when crowded.

The institutions are divided into—1. State Asylums or Hospitals for Acute Insane, of which there are four, at Utica, Poughkeepsie, Buffalo and Middletown, (the last homeopathic): 2. State Asylums for Chronic Insane, of which there are two, Willard and Binghamton: 3. County Asylums for Acute or Chronic cases, of which there are five connected with New York city, one in King's county, and one in Monroe county: 4. County Asylums for Chronic cases alone, (licensed by State Board of Charities), of which a list of eighteen is given, in as many counties: 5. A list of Poor-houses in the remaining counties of the State, which have insane persons in them: and 6. A list of ten Private Asylums which had a total of 733 patients in charge October 1, 1886.

In the first class, or State Acute Hospitals, October 1, 1886, there was a total of 1,808 remaining under care; in the second class, or State Chronic Asylums, a total of 2,754; in the third class, or County Asylums for both Acute and Chronic, 5,986; in the fourth class, or Licensed County Asylums for Chronic Insane, 1,637; in the fifth class, or Poor-houses, a total of 491; in the last, as mentioned above, 733: to all which must be added 201 for the State Asylum for Insane Criminals.

In regard to provision for all this mass of insanity in the State it seems obvious that we have reached the point of more adequate accommodation for the chronic class than for the recent patients. Besides the institutions for the former class at Willard and Binghamton, and the eighteen County asylums, the State hospitals for acute cases have in them a too large proportion of chronic cases, while in the very large number cared for on the islands in the East River there is a continued accumulation of chronic insanity, which the overcrowding and inadequate plant only tend to intensify. It is not to be forgotten that insufficient or inferior provision for the recent insane only contributes directly to swell the growing stream of helpless incurability. We are here told that from lack of accommodation, the compulsory discharges at Buffalo are so numerous, on account of the pressure of admissions, that "a very small percentage of the patients remain as much as one year." This is disastrous policy all round. The same difficulty has been felt at Poughkeepsie, but now is in a fair way to be removed by the plan, now being carried out, of separate buildings in another part of the farm, expressly constructed for chronic insane. The Lunacy Commissioner strongly commends this policy, as worthy of adoption by the State. We suppose it hardly differs from the so-called "colony system," that has been to some extent illustrated in Michigan and Illinois. The principle is simply one which would enable all existing hospitals to provide for their own accommodations of chronic insanity, by adding as may be needed, separate buildings on a less expensive scale, for this class, under the same administrative supervision, without materially increasing the costly plant already established. Should this plan be finally adopted, it would at least present some appearance of an intelligible policy at last settled upon and followed by the State. There need be nothing to hinder *all* the present asylums in the State from finally taking on this "*mixed*" character; for it is not to be denied that the matter of *first* importance is to have the means of speedy treatment of recent cases readily accessible within a short distance. It is this alone that can promise anything like a check to the rapid increase of chronic insanity. We are far from having reached that point yet; but the plan already initiated at Poughkeepsie, and we believe, intended to be carried out at Ogdensburgh, will give great momentum to this movement, if successful in these two instances. It has been one of the traditions of this JOURNAL to oppose separate institutions for the two classes, and we cannot help believing that the splendid development of Willard, under its

able and accomplished medical officers, with the recent addition of admirably designed infirmaries for both sexes, will finally put it in line as a hospital with all the other State hospitals for the insane, even if some trifling changes in legislation become necessary.

The present state of things indicates too little faith in curative means. The public eye has been diverted to the provision for chronic insanity. Hasty measures have resulted in relegating it to county care, in a far larger number of cases than should have been allowed, and in this we believe the State Board of Charities will agree with us. The consequence is, that the superior and only efficient system of treatment in State hospitals has not kept pace with the requirements of the situation as shown by the statistics. *All* the asylums should be hospitals, with the means *at hand* of separating and caring for their chronic accumulations as fast as they become unamenable to further special treatment, or of no beneficial influence in the treatment of others. This would be relief always available, involving no delays or hesitation of judgment or long and expensive transfers. With this determinate policy for our State institutions, those connected with New York city would not long fall behind the general movement. We are not sure indeed but that New York may anticipate the rest of the State in this regard. We should hope that the result of the recent investigation under the State Board will give an effective impulse to the contemplated changes then to better location and wider area of land, in some country district. We have long turned a sorrowful eye to the East River islands as a most fertile soil for the growth of chronic insanity.

Dr. Smith's observations on the general lunacy system, the matter of provision, and various points of internal administration and treatment, are of great interest, and full of pregnant suggestion. He is thoroughly in favor of the "mixed asylum" system, and presents in full the considerations that make its expediency most obvious, and we are glad to see he makes use of the Willard Asylum as a palmary example of the manner in which it might be carried out.

His treatment of the other subjects, Training Schools for Attendants, Uniforms, Schools for Patients, Restraint, and many others, will furnish any inquirer with almost all he can wish to know of the present status and methods of lunacy administration in this State.

THE BUFFALO INSANE ASYLUM.—One of the least respectable yet vexatious annoyances which members of the specialty have experienced in developing the system of hospitals for the insane in this country has been the eager disposition, too prevalent in the public mind, to give credit to any wild tale of partially cured patients or discharged employés, of abuses and maltreatment in their respective institutions. People whose very kindness is cruelty in homes destitute of all facilities for the proper care of their afflicted friends, are somehow ready at once to believe any description of wilful mismanagement and heartless abuse in public hospitals whose every appointment is designed for the comfort and welfare of their inmates, and under the charge of men generally selected with a view to their special and general aptitude for asylum work. Patients whose incoherent mutterings and delusions of persecution simply cut off all possibility of intercourse at home, are regarded as very credible witnesses to what goes on in an asylum.

When to this is added what is getting to be the utter irresponsibility of a popular press, the mischief is enormously aggravated. The craze of sensationalism, and an insatiable greediness for whatever will pass for "news of the day," in which all regard for truth and veracity is sacrificed to priority of publication have not only destroyed the possibility of sober reflection and rational comment on current events, but have almost rendered impossible the attainment of the exact facts and truth in any great question or investigation, except at a cost of time and labor and money that becomes an intolerable burden. The public conscience has little opportunity in this whirl of confusion to exercise its function or bring itself to bear upon any measure or proceeding of public or private life.

The press once treated professional specialties in somewhat the same manner as lawyers and judges once listened to the testimony of an expert, not supposing it was possible for all men to be equally conversant with all subjects. But now when we see newspaper reporters and editors abusing personally the judges of our highest courts for their firm adhesion to the rules and principles of law, even in points that do not touch the merits of the case, points that a popular furor cannot understand, and that too in language which under any strict application of the law itself, would consign the writers to a prison, we cannot but conclude that we are justified in applying to such professional journalism the word "irresponsible."

It is in precisely the same spirit, and with the same pretensions

to infallibility of knowledge, that a large share of the newspaper press deals with those who are devoted to the science of of psychiatry. Within our own recollection there have been a series of repeated charges against, and legislative investigations of, the management of our lunatic asylums, each following some transient tempest of abuse in the press. Of course we cannot expect newspapers to be endowed with memory or respect to precedent. If a chance of political advantage, or the opportunity of a transient sensation offers, who is going to intrude on the public gaze any lesson of former experience? Everything is always *news* to the juvenile or the unreflecting mind; and under such education the average people become not only unfit to serve on juries, but incapable of a fair judgment on almost any public question, and dependent on an influential neighbor for their opinions.

Of course, the newspaper press is an indispensable agency of information. We can only wish it were less disposed to prejudge the merits—or the meaning—of every fact it records, and to inflame the public mind with what so often turn out to be unwarranted prejudices, and even positive misrepresentations. In some degree, at least, we believe the public mind has realised the truth of the old fable of the boy that called “wolf!” when there was no wolf, till perhaps it is difficult to get attention to some evils that are indisputable.

These general remarks have been exemplified in the history of recent occurrences at the Buffalo Asylum, an account of which we append, commending to our readers the very sensible and judicious observations of Judge Beckwith in his charge to the jury. Besides this prosecution of certain attendants of the Institution, it appears that the Board of Supervisors of Erie County appointed a committee to “investigate” the treatment of Erie county patients, with powers of subpœna over persons and papers! This committee *advertised* for cases of complaint outside the asylum, arranged plans for collecting evidence, and without any communication with the Board of Managers, applied to the Superintendent for access to make “official investigation,” which the Superintendent declined on the plea that he was not aware of his amenability to any or all the county authorities in the country, as being at the head of a State Institution. In a very temperate but decisive document published in the Buffalo papers, the Board of Managers have read the supervisors a very wholesome and instructive lesson, as to the limits of their own relation to the institution, and the

details of its management, and cordially inviting them, along with the public at large, to come at any time and see for themselves. As in all our asylums, thousands of the people, including friends of the patients, have already made these "domiciliary" visits.

Possibly more pains might have been taken to placate the supervisors by an exhibition of gentle forbearance. An arrogance born of the imaginary possession of authority and unseemly haste to demonstrate that possession, might have been met by affable welcome and patient instruction (perhaps it was) as to the limitations of their powers, the methods of paying bills, &c. It may be—though even this assumption is not a safe one—that if the information contained in the dignified and able presentation of the board could have been laid before the supervisors at an earlier date, it might have prevented or modified an unfavorable report. At least it would have enabled the managers to show that the committee sinned deliberately against light and reason. As a rule supervisors represent the average common sense of the community in which they dwell and in so far yield to reasonable argument. Yet there are occasions when the prosecution of selfish schemes introduces an ulterior and unworthy element into their deliberative proceedings. We believe that some such motive has been operative in the present instance for we know it to be a fact that strenuous efforts have been put forth by the Erie county authorities to obtain permission to care for their own insane independently of the State. The State Board of Charities has not looked with favor upon this project while the State Charities' Aid Association has, within a few months, called attention, in a printed report, to the utter inadequacy of existing conditions of care in the insane department of their almshouse.

May it not be that this disappointed ambition has begotten something of envy and self-righteousness? Would the supervisors rejoice more in the verification of alleged abuses at the Buffalo asylum or in the discovery of an irreproachable management? Be the answer to these questions what it may, a little self-serutiny on this subject might not be altogether barren of results.

Meanwhile it is refreshing to read in the *Buffalo Express*, under date November 23d, 1887, the following comment on the situation:

A long statement from the resident Trustees of the State Insane Asylum at Buffalo is printed on another page. It will arrest attention and should be carefully read, especially by those who paid a like attention to the long arraignment of the management of the asylum which was submitted to the Erie County Board of Supervisors last week by a committee from that body, to which official report the present publication is a formal answer.

Those who have given equal attention to both documents and to each side a fair hearing (as readers of *The Express* have now had opportunity.) will be apt to decide that the trustees' answer to the committee's report is both dignified and satisfactory. It leaves the impression that the report to the Board of Supervisors was not well considered, to say the very least, and that the best way to deal with it, if it is ever lifted from the table, would be only to put it under.

MICHIGAN JOINT MEETINGS OF ASYLUM BOARDS.—In 1877, upon the opening of an additional asylum for the insane, at the suggestion of Hon. Henry W. Lord, the Secretary of the State Board of Corrections and Charities, a law was enacted in Michigan which provided for joint meetings of the boards of asylum trustees twice every year to discuss and decide all questions of common interest to the institutions represented. Since that date joint sessions of these boards have been held under this law with marked benefit to the asylums of the State. At their sittings, which are in rotation at each institution, reports of the condition of the various asylums are heard, questions of public policy regarding the insane are discussed, amendments to existing laws are considered prior to their enactment and all measures bearing upon asylum work are carefully studied. In addition to this general work the rate of maintenance to be charged by all asylums to counties is annually fixed at the conference. The State is also divided into asylum districts at these joint meetings, and patients are transferred from one asylum to another whenever the overcrowding of an institution demands it. In short, these joint sessions perform many of the duties which in other States devolve upon Boards of Charity or Commissioners in Lunacy.

The records of the meetings thus held during the past ten years show that almost every question which arises in the administration of a State asylum has been considered and acted upon after mature deliberation. In many instances the discussions which have taken place in these gatherings have initiated important legislation. Several years ago, for example, after many facts showing the necessity of an additional asylum had been brought to their attention in this manner, the trustees took decisive and efficient action and procured the passage of a bill which established and erected the asylum at Traverse City. The movement for the erection of a criminal asylum at Ionia, also originated in the same manner from a conviction that criminals should be separated from other insane patients. A similar consideration of the importance of employment as a curative agency in the management of the

insane suggested the passage of the law which made it the duty of the asylums to use every proper means to furnish employment to such patients as would be benefited by regular labor suited to their condition. On another occasion the policy of separating the recent from the chronic insane was fully and dispassionately discussed, and unanimously decided to be inadvisable as a State measure in Michigan. The following are a few of the many questions which have been considered and acted upon at these joint sessions: "The advisability of appointing female assistant physicians in asylums." "The necessity of increased facilities for the study of pathology." "The establishment of training schools for the education of attendants." "Non-restraint as a system of asylum management." "The night nursing of feeble and epileptic patients." "The systematic visitation of asylums by boards of trustees." "The policy of introducing general visitors to the asylum wards." "A uniform system of keeping the accounts of all the asylums." "The colony system as a mode of providing for the enlargement of existing asylums."

Where no central board of lunacy exists in a State it would seem as if similar meetings of asylum boards were indispensable to a proper comparison of views, and the adoption of a consistent and harmonious State policy for the care of the insane. It is asserted in Michigan that meetings of this character have kept the asylums harmonious and mutually helpful, with uniform rates of charge and similar business methods. They have afforded opportunities for a free interchange of views and friendly discussion upon mooted questions. They have enabled trustees and managers to personally observe at regular intervals the workings of all the asylums, and have thus stimulated them to a friendly, generous and helpful emulation. A uniform policy for the care of the insane has thus been established for the whole State without internal dissensions or bitterness. New and better methods of care have been inaugurated simultaneously at all the asylums, and each has profited by the experience of the other.

THE LEGAL TEST OF RESPONSIBILITY IN ALABAMA.—Judge Somerville, Associate Justice of the Supreme Court of Alabama, recently rendered a decision in the case of *Parsons vs. The State*, which marks the beginning of a new era in the Jurisprudence of Insanity in the Courts of Alabama. His conclusions in brief were: That the inquiries to be submitted to the jury in every criminal trial, where the defense of insanity is interposed, were,

First: Was the defendant, at the time of the commission of the alleged crime, as a matter of fact, afflicted with disease of the brain, which affected the mind and produced insanity? *Second:* If such be the case, did the criminal know right from wrong, as applied to the particular act in question? If he did *not* have such knowledge he is not legally responsible. *Third:* If he did have such knowledge, he may, nevertheless, not be legally responsible if the two following conditions concur: (a) If by reason of the duress of such mental disease, he had so far lost the power to choose between the right and wrong, and to avoid doing the act in question as that his free agency was at the time destroyed. (b) And if at the same time the alleged crime was so connected with such mental disease in the relation of cause and effect as to have been the product of it solely.

THE ST. LAWRENCE STATE ASYLUM.—We are glad to hear that Mr. I. G. Perry has modified his plans for the central group, or hospital building proper, of the new State Asylum at Ogdensburgh, N. Y., so as to reduce its capacity from six hundred to three hundred patients. This reduction is in harmony with the suggestion of the late Insane Asylum Commission, made in reporting plans. The need of provision for acute cases at Ogdensburgh is small, and this kind of provision as compared with accommodation for the chronic insane is very expensive. In our judgment accommodation for three hundred acute cases in an asylum of one thousand or more insane of all classes, is an abundant proportion. The great need of the State at present is for increased accommodation for the chronic insane on the colony or cottage plan. The large tract of productive land acquired by the St. Lawrence State Asylum should enable it, if wisely managed, to maintain the chronic insane at a low rate, and the care and custody of this class was the primary aim of those interested in the founding of the asylum.

The members comprising the Board of Managers of the St. Lawrence Asylum would do well to render themselves thoroughly conversant with the needs of the insane in this State, by travelling and all other methods of inquiry, before committing themselves to a policy that subsequent developments might prove ill-considered. We have already had too much hasty lunacy legislation in this State, and it is not altogether improbable that in rendering an incongruous lunacy system still more incongruous the promo-

tion of interests other than those of the insane has sometimes been had in view.

THE MARTYROLOGY OF PSYCHIATRY.—Under this striking heading, Dr. Hospital has collected (*Chronique, Annales Médico-Psychologiques*, November, 1887,) twenty-four instances of murderous assault, many of them fatal, made upon asylum physicians, beginning with the illustrious Pinel. Of Americans, the list includes Dr. Coosk of Conondaiga (sic), Dr. Vooburg of Mac-Lean, Massachussets (sic), Dr. Adams of Tralamazo (sic) Michigan, and Dr. Gray, of Utica. This *martyrdom* of American proper names—a common fate at the hands of French commentators—is completely overshadowed, however, by the melancholy interest of Dr. Hospital's record. It is in truth a *via dolorosa* that he causes us to traverse with him. The list is doubtless far from complete, and very natural is the chronicler's exclamation in closing it: "Peut-être ai-je été trop long; et cependant combien de dévouements inconnus, de trépas héroïques, d'infirmités incurables, de martyrs obscurs, ne pourrais-je pas citer encore, si j'étais plus complètement renseigné!"

MARRIAGE AND INSANITY IN IRELAND.—The *Lancet* in a review of the Dundrum Criminal Lunatic Asylum makes note of the curious fact that the single among the inmates are three times more numerous than the married and widowed combined, and adds that this fact is observable in most, if not all, Irish asylums. In the State of New York quite the contrary seems to be the rule, as an examination of the statistics of the Utica asylum shows that the number of single inmates is only about half that of the married and widowed.

STATE CARE vs. COUNTY CARE FOR THE INSANE.—At the risk of being tedious in our advocacy of State care for the Insane, we refer to this important subject once more by quoting the following significant passage from a letter addressed by the Hon. Wm. P. Letchworth, President of the State Board of Charities, to the Erie County Board of Supervisors, under date November 23d, 1887:

If it were possible for the county to send the excess of its chronic insane to the Willard Asylum it would certainly be advisable to do so, and this would be a happy solution of a difficult problem. I believe there is no question, but that State care is better than county care; and when the cost is not estimated, but arrived at by a separate system of accounting, is cheaper. Several

counties have tested this and found to their surprise that their insane cost them much more kept at home than if sent to Willard. We accept county care, not from choice, but necessity; for the accommodations of the State for the chronic insane have always been inadequate. The reason why State care is better lies in the fact that it is administered by uncompensated non-partisan boards whose members are appointed for long terms. Boards of Supervisors are constantly changing their membership, and the great advantage arising from cumulative experience in the management of the insane is lost. Besides, under the county system, the care of the insane becomes to a greater or less degree a medium for the distribution of political patronage. It appears to me that, in this day of broad intelligence and deep humanity, a class so unfortunate as the insane might be spared the infliction of evils inherent to the "party spoils system," and that our county governments might rise to the dignity and impartiality of the State government in the dispensation of its benefactions to those suffering under an affliction so pitiable as the loss of reason.

OBITUARY.

F. E. ROY, M. D.

Again death has invaded the ranks of asylum superintendents and another prominent figure is gone in the person of Dr. F. E. Roy, superintendent of the Quebec Lunatic Asylum, who died in October last. He was born on March 11th, 1837. His classical education was obtained at the College of Ste-Anne de l'Apocatière, and his medical studies were pursued at the University of Toronto. His first public service was that of resident physician of the Marine Hospital at Quebec, a position which he soon after resigned to accept the post which he held at the time of his death.

Dr. Roy was one of those kindly men whose felicitous qualities of mind and heart tend to lessen the sum of human sorrow in the communities where they live. He was always ready to lend a helping hand, and often went in quest of sufferings in order to relieve them. His broad charity reached humble homes and shed brightness and joy around cheerless firesides. Noble in sentiment, generous, straightforward in his intentions, charitable in his social relations, everything about him was an example to be followed. In administering to the unfortunates under his care he labored with indefatigable industry and zeal until exhausted nature rebelled, and even his wiry physique yielded to the strain of over-work. By his death Quebec mourns a valued citizen and the medical profession has lost its leading alienist.

EDWIN HUTCHINSON, M. D.

Died in Utica, October 19, 1887, Edwin Hutchinson, M. D., of Bright's disease, at the age of forty-seven.

Dr. Hutchinson was another of those rare souls, so splendidly equipped for the battle of life, so richly endowed with the gifts which carry pleasure and profit to others, so eager to help the world to better things, and so wonderfully capable, by nature and by training, to benefit humanity in the practice of his profession, that we stand silent and dumbfounded at the decree which picks such a life from among the rest.

Thoroughly educated in the best medical schools, equipped in all departments of medicine by a long service as a staff surgeon during the war, widely traveled, a man of large reading and close observation, with keen perceptions and an eye and hand of unerring steadiness, Dr. Hutchinson was easily entitled to a rank among the best practitioners of the State; and in his specialty, which was the treatment of the eye and the ear, he had no superior in central New York.

Into his personal relationships he brought the charm of a ready wit, a kindly nature, a rare and appreciative taste, and a wealth of intellectual attainment, which made him friends everywhere, who were bound to him by ties that were stronger than blood. This brief tribute to the memory of a departed friend is but a feeble expression of the sorrow that his untimely death has brought to many households in the city that was Dr. Hutchinson's home.

N.

J. N. RAMAER, M. D.

We regret to learn of the death on November 2d, 1887, of Holland's renowned alienist and neurologist, Dr. Ramaer. He was born April 20th, 1817, at Bois le Duc, and was a pupil of Schroeder van der Kolk. He held many important positions under the Dutch government.

ACHILLES FOVILLE, M. D.

Psychiatry the world over sustains grievous loss in the death, of Bright's disease, on December 15th, 1887, of this celebrated man, concerning whose life work we shall have something to say in our next issue.

QUARTERLY' SUMMARY OF ASYLUM NEWS.

ALABAMA.—A new building has recently been erected at the Alabama Insane Hospital to accommodate about 200 patients. A single large refectory in which both sexes will take their meals together is the distinctive feature. For several months past, the male patients, to the number of 500, have been taking their meals in a common dining-room. The experiment has been a success.

CALIFORNIA.—Mr. Fred H. Wines, secretary of the State Board of Charities, Ill., has paid a visit to the charitable institutions of California, recently, staying a day or so at each asylum. He criticizes, and very justly, the deficiency in the medical staffs, and makes other suggestions which are likely to appear in a printed report.

The overcrowding of the two State asylums is becoming a matter of general comment and condemnation. The failure of the new Asylum for Chronic Insane at Agnew to receive patients is the cause. The Board of Trustees of that institution have spent most of their time wrangling among themselves. The superintendent and steward have held their positions there nine months, although it will apparently be some time yet before a patient is received.

DAKOTA.—The new amusement hall of the Dakota Insane Asylum was opened at Christmas with appropriate exercises, including a Christmas tree. Workmen are at work boring an artesian well.

FLORIDA.—Under the present lunacy law, any person, not necessarily a physician, who may be considered competent can be appointed superintendent of a State asylum by the Board of Public Institutions, after giving a bond in the sum of \$5,000. It is to be hoped that a more enlightened policy may prevail in Florida before long, and make thorough medical training a *sine quâ non* to appointment.

ILLINOIS.—The Southern Hospital for Insane has accommodation for between 600 and 700 patients. Considerable anxiety has for some time past existed and still continues on account of the insufficient supply of water.

KENTUCKY.—Dr. W. C. Dugan, who resigned his position of first assistant at the Central Kentucky Asylum to accept the Chair of Anatomy and Microscopy in the Hospital College of Medicine and to engage in private practice in the city of Lexington, has been succeeded by Dr. W. H. Rogers, recently of College Hill, Ohio, and formerly connected with the Eastern Kentucky Asylum at Lexington.

MARYLAND.—The Bay View Asylum has no medical superintendent, the medical department being represented by two resident medical officers, the physician in charge and his assistant. It is under the control of Johns Hopkins University, which sends visiting physicians daily to superintend the work.

Among the gentlemen who are thus directly connected with the asylum may be mentioned, G. Stanley Hall, Professor of Psychology and Editor of the *American Journal of Psychology*; H. Newell Martin, Professor of Biology and Physiology; and W. H. Welch, Professor of Pathology, all of whom are members of the faculty of Johns Hopkins University.

The treatment proper and general administration of the hospital is in the hands of the resident physician and his assistant. It is expected that this field of usefulness will be much enlarged when the medical department of the University opens. This is the only insane hospital in this country under the direct and exclusive management of a university.

There is pressing need in the State of Maryland for an institution for the care and education of the feeble-minded. Notwithstanding frequent appeals by Dr. Gundry to the legislature, nothing has been done as yet. In the report for 1887 of the Maryland Hospital for the Insane, the superintendent addresses himself once more to the question: "I have in former reports so often and so fully dwelt upon this topic, without effect, that I merely allude to the subject at this time, to report that during the past year we have been more than ever convinced that such an institution is urgently required, by some cases that have been brought here of this character. Feeble-minded or deficient children—idiots and imbeciles, are not the proper subjects for hospitals for the insane, but they are sent here simply because there is no other place for them. Yet many could be benefited by proper training in an institution adapted for the purpose."

Among the patients is a little girl four years and eight months old. *Proh pudor!*

MASSACHUSETTS.—The Westborough Insane Hospital was opened December 6, 1886, when fifty patients were transferred from the Worcester Hospital. In March, 1887, an epidemic of diphtheria occurred. The whole number of persons attacked was seventeen, of whom seven died. The cause was found to be defective drainage and sewerage. Clinics are held at the hospital for the undergraduates of the Boston University School of Medicine.

The report of Dr. Emmons Paine for 1887 contains the following recommendations:

State Pathologist.—The State Board of Lunacy and Charity recommended, at the last session of the legislature, that a State pathologist be appointed to attend to the pathological work of all the State hospitals for the insane. I believe such an officer would prove to be of great value to the hospitals and the medical profession. His powers, however, should be limited. He should be a consultant. It would not be either courteous or right for him to visit a hospital in case of a death, hold an autopsy, take away the specimens, and make an official report to the State without consulting with the hospital physicians. As physicians in charge of the patients we are acquainted with their past history and their condition in the hospital; and, after death, we wish to make the autopsies, and perhaps keep the diseased portions of the bodies; but we should be pleased to ask advice from the State pathologist and to draw upon his information and wider experience.

Districts in the State.—At the last session of the legislature a statute was enacted which divides the State, except the county of Suffolk, including

Boston, into four districts: one for Worcester, one for Northampton, one for Danvers, and one for Taunton, while the insane from the county of Suffolk may be sent alternately to the hospitals at Worcester, Danvers, Taunton, Boston and Westborough. In accordance with this division all the patients from Boston, numbering fifty, were sent to this hospital during five weeks after the first day of July. I hope it may be deemed an act of justice by the State Board of Lunacy and Charity to send a larger proportion of the new commitments to Westborough, when other hospitals are so crowded that it becomes necessary to transfer to this hospital their incurable cases to make room in them for new commitments.

Two new wards, planned with a view to special and constant surveillance of the suicidal insane of either sex, have recently been completed at the Worcester Lunatic Hospital. This essential feature has been structurally embodied in the novel departure in asylum architecture of circular wards. The cost has been at the rate of \$600 per patient. Accommodation having been provided for fifty patients at a total expense of \$30,000. By an act of the legislature, the name of the asylum for the Chronic Insane at Worcester has been changed to the Worcester Insane Asylum.

MINNESOTA.—The last legislature accepted the report of the commission appointed to locate a third hospital for the insane, and made appropriation for the farm and part of the buildings to be erected. Work will be begun at Fergus Falls, the site selected, in the spring. The three hospitals of this State will be under the control of one Board of Managers, nine in number, giving a local committee of three to each hospital. It is hoped that the united wisdom of the management will suggest a less pragmatistical method of designating the State hospitals than the numerical one now in vogue.

MICHIGAN.—At the Eastern Michigan Asylum, Pontiac, cottages will soon be opened for patients in pursuance of the colony plan. It is stated that the cost will be at the rate of \$260 per bed, exclusive of furniture. Appropriate exercises were held on Christmas eve. There were eight large trees abundantly supplied with presents.

There are at the present time in the Asylum for Insane Criminals, Ionia, 110 patients, while the accommodation is only for 100. The incoming legislature will be asked to make appropriation for larger and entirely new buildings, remote from the present, so as to have the additional advantages of a farm.

Juxtaposition to a prison, in an asylum for insane criminals, is obviously unwise. Many improvements in construction might be introduced in a new asylum, and much that is prison-like in the present structure might be profitably omitted. The advantage of farm lands cannot be over-estimated in the treatment of all classes of the insane.

NEW JERSEY.—The State Lunatic Asylum at Trenton has at present 700 patients, with accommodations for only 500. The annex now in course of erection will accommodate 300, and will be, when completed, occupied by the quiet chronic insane. The relief afforded will be only temporary, as there is an annual increase of about twenty-two patients.

The following changes on the staff at the State Insane Asylum, Morris

Plains, are reported: Dr. W. L. Russell, first assistant, resigned October 1, 1887. Dr. C. P. Wertenbaker, second assistant, resigned October 3, 1887, and was succeeded by Dr. D. W. McFarland, who resigned November 11, 1887. Dr. Henry W. Harris, formerly of the State Asylum at Norristown, Pa., has been appointed first assistant. Dr. A. McFarlane has been advanced from fourth to second assistant. Dr. W. P. Spratling of New York was appointed, after competitive examination, third assistant. The position of fourth assistant will soon be filled.

Since the change in the management of this asylum in 1885, nine medical officers have resigned.

A training school for attendants has been in successful operation for several months, at the Essex County Asylum, Newark. Dr. James A. Bolton, first assistant, resigned to accept a position in a private asylum at Litchfield, Conn. Dr. Albert C. Nash, second assistant, was promoted to the position. The vacancy caused will be filled by competitive examination.

NEW YORK.—Dr. Wise's annual report to his trustees contains the following important section:

“Sixty-five patients were discharged unimproved, but of this number fifty were transferred to institutions in counties exempted from the operations of the Willard law by the State Board of Charities. With these exceptions, patients were discharged into the custody of friends, who presented satisfactory evidence of their ability and willingness to care for them. All discharges were ordered by the board of trustees when in session, or by the committee on the discharge of patients between the meetings of the board. It would seem that the law empowering the State Board of Charities to exempt counties from the tenth section of the Willard Act, might be amended to define the relation of counties, to patients in the State asylums previous to exemption. The present law only relieves superintendents of the poor from the mandatory requirement to commit the insane poor to the Willard Asylum, but does not empower them to remove patients already in asylum. Although in consonance with the State Board, you have interpreted the law as permitting counties to remove their patients from this asylum upon presenting their certificate of exemption, the experience of the past year has shown that this liberal interpretation has led to abuses, and that, until the ‘exemption law’ is amended to definitely grant this power to county officers, no harm can possibly result from a strict adherence to the letter of the statute. If counties placed in the responsible position of independence as far as the disposition of their insane is concerned, openly disregard the rules established by the supervisory board of the State for the *care* of their insane, and violate the conditions of exemption created by the board granting it, it would seem that the time had arrived for prohibitory legislation.

The legislature has, by the increase of State accommodation for the insane, fostered the policy of State care, and sustained the reiterated declaration that all the insane are, properly, wards of the State. The wretched condition of the insane in county almshouses a score of years ago, is a history too recent to be forgotten. With the present system of official visitations and supervision it is hardly possible that the insane in counties can reach the deplorable condition of that time; but each year proves that the county care

of the insane is liable to relapse into a condition far below a proper standard, and the remedy is not always within reach."

Provision on an extensive scale has been made at the Willard Asylum for epileptic, helpless and infirm patients by the erection of infirmaries. "The infirmary for men patients consists of two one-story day-rooms 40 x 69 feet in size, separated by a three-story central building; two one-story associate dormitories 42 x 60 feet, and two two-story buildings for general hospital purposes. A one-story day-room, a two-story hospital, and one-story dormitory constitutes one wing and contains accommodations for seventy-five patients. A covered portico twelve feet in width, extends around either side of the infirmary. The first floor of the central building, 38 x 62 feet, is used entire as a dining-hall for patients, and is connected in the rear with a one-story kitchen and its accessories. The two remaining stories are used as living apartments for officers, servants and night attendants. The ceilings of the one-story buildings average thirteen feet in height, and all other ceilings eleven feet. The building is substantially built of brick on a solid basement foundation, and the approximate cost of construction was two hundred dollars per bed, exclusive of furniture and equipments.

A medical officer, supervisor, housekeeper, ten day and six night attendants and nurses, a cook, five domestics for dining-room and kitchen service, a porter and fireman, will constitute the organization when completed. The proportionate cost of this service will be greater than that of the general asylum wards, but as the removal of this helpless class from the other wards will relieve them, the average cost of service will not be materially increased. The additional rules governing the infirmaries and hospital wards apply chiefly to the service at night. Day attendants and nurses are relieved from duty at the patients' bedtime, when the day-rooms are vacated and the dormitories are occupied, and return to duty at 6 A. M. During the interval night attendants and nurses are on duty. There is no hour of the day or night when patients are unattended. A rule that is strictly maintained is, that no patient shall remain in an untidy or uncomfortable condition longer than is necessary to effect a proper cleansing and change of clothing. Patients must be raised at regular intervals until they become habituated to a *self-response*. In a test with thirty patients with dirty habits under infirmary care, the first night found twenty-three of them soiled notwithstanding the attention given them; but after three months' course of infirmary treatment there is only an average of three soiled nightly under the same service. In other words, the first night eighty-five pieces of clothing were soiled by thirty patients, while now with seventy-five patients the average number of soiled pieces does not exceed ten. The humane aspect of our infirmary care is of still greater importance, for patients who are habitually uncomfortable are there kept in a comfortable condition. The reflex faculties of demented are prevented from lapsing into entire forgetfulness. Epileptics, suffering particularly from night convulsions, have watchful care at night. Suicidal patients can be safely cared for without restraint, and the sick and bedridden have hospital appliances supplied for their comfort and constant attendance. It is not my purpose to imply that this has not previously been done, but we may safely assume that the construction and organization of our infirmaries is a departure from usual methods of care for this class, that for efficiency and economy has not been surpassed."

There are at present a number of vacancies on the staff of the New York City Asylum for the Insane, Ward's Island. Dr. Stuart Douglass, first assistant has been transferred to the Reception Pavilion for the Insane at Bellevue Hospital.

At the New York City Branch Lunatic Asylum, Hart's Island, a new and substantial pavilion, with accommodation for 225 patients has recently been completed and will be occupied by patients transferred from the Blackwell's Island Asylum. Dr. Frank A. E. Disney, second assistant, recently resigned to accept a position in the Department of the Interior at Washington. Dr. W. A. Macy, formerly connected with the Workhouse and Almshouse Hospitals, as house physician, was appointed to fill the vacancy.

Dr. John W. Semple, late assistant physician at the Kings County Hospital, Flatbush, L. I., has been appointed second assistant at the State Asylum for Insane Criminals, Auburn.

The new buildings at the Hudson River Hospital for the Insane, Poughkeepsie, are approaching completion and will accommodate 500 patients.

Dr. Frederick Peterson, first assistant, has resigned in order to enter private practice at Buffalo. Dr. T. Kellogg, of New York City, has been appointed in his stead. Dr. Charles E. Atwood, third assistant, resigned November 14, 1887, to accept the position of fourth assistant at the State Lunatic Asylum, Utica.

At the annual meeting of the Board of Managers of the State Lunatic Asylum, Utica, the per capita charge to counties was reduced from \$4.00 to \$3.75 per week.

The Edison Company have almost completed their work of wiring the building. An attendants' ball was held December 14th, 1887, in the Assembly Hall. Each attendant had the privilege of inviting two friends.

The Christmas exercises were of more than ordinary interest. They consisted of carol-singing, a Christmas tree and a visit from Santa Claus and his clerk. A large number of presents were received from the friends of patients in response to a circular letter issued shortly before the holidays.

Dr. Ogden Backus, second assistant, resigned October 1, 1887, to enter private practice in the city of Rochester. The vacancy thus created has been filled by the appointment of Dr. Charles E. Atwood to the position of fourth assistant, and the promotion of Drs. Charles G. Wagner and Wm. Mabon to second and third respectively. Dr. Atwood is a graduate of Cornell University, Class of '80, and of Bellevue Hospital Medical College, Class of '83. He was connected for a year and a half with the New York City Asylum, Blackwell's Island, and for the past three years has been third assistant at the Hudson River State Hospital for Insane, Poughkeepsie.

NORTH CAROLINA.—The term of Dr. J. D. Roberts, superintendent of the Eastern North Carolina Asylum, having expired, Dr. John F. Miller, of Goldsboro, was elected in his stead. Dr. Roberts expects to enter private practice in Durham.

OHIO.—Dr. W. H. Rogers having resigned his position as assistant physician at the Cincinnati Sanitarium, to accept a similar one in the Central Kentucky Asylum, Dr. Silas Evans, late of the Eastern Kentucky Asylum, has been appointed in his place.

On the evening of October 12, 1887, while the weekly dance was in progress, a fire broke out in the laundry building, adjoining the amusement hall, of the Northern Ohio Asylum, Cleveland. The fire soon spread to the hall itself, causing a panic among the patients. The physicians, assisted by the attendants, worked hard to allay the fears of the patients and to see that they were safely removed from the building. All the male patients got out safely, but some of the weaker women were overcome by smoke and trampled on, resulting in the death of six patients and one attendant. The burned portion was a relic of the fire of 1872, the rest of the building being new. It is stated that if the fire had occurred ten minutes later, all the patients would have been in their rooms and no loss of life would have ensued.

PENNSYLVANIA.—Dr. E. E. Jesselyn, assistant physician on the male division of the Pennsylvania Hospital for the Insane, has resigned to accept a position in the New York Hospital for the Ruptured and Crippled. Dr. W. H. Harrison, late an assistant physician at the New York City Lunatic Asylum, Blackwell's Island, has been appointed in his place. Dr. Champe S. Bradfute has been appointed clinical assistant. The Board of Trustees propose to appoint a clinical assistant every four months.

Dr. Martin W. Barr, a graduate of the University of Pennsylvania, who has been for the past three years the second assistant at the Pennsylvania Training School for Feeble Minded Children at Elwyn, Pa., has been appointed to the position of second assistant at the State Lunatic Asylum, Harrisburg.

TENNESSEE.—Dr. J. R. Brown, formerly first assistant physician at the Indiana Hospital for the Insane, has been appointed assistant physician at the Eastern Hospital for the Insane, Knoxville.

TEXAS.—Both of the State asylums are very much overcrowded, and it is expected that the legislature will provide extra accommodations by enlarging one of them.

An attempt, let us hope a successful one, will probably be made to have the lunacy laws changed so as to either dispense with jury trials or give the friends and relations of patients, their choice between the old plan and private examination by physicians.

VERMONT.—Dr. J. Draper, superintendent of the Asylum for the Insane, Brattleboro, has prepared and will soon publish the "Annals of the Vermont Asylum for Fifty Years."

WISCONSIN.—Dr. Walter Kempster having resigned the superintendency of the Northern Hospital for the Insane, Winnebago, to practice medicine in Washington, D. C., Dr. C. E. Booth, of Elroy, Wisconsin, has been appointed to fill the vacancy. The appointment is only for one year, and the conditions imposed by the State Board come perilously near being degrading. The wonder is that a gentleman can be found willing to accept the position. It really looks as though the State Board were doing all in their power to belittle the State hospital service at the expense of their vaunted county asylums.

At the State Hospital for the Insane, Mendota, Dr. C. E. Armstrong has been promoted from second to first assistant to fill vacancy caused by the

resignation of Dr. W. E. Fernald, and Dr. L. C. Borland, late of St. Luke's Hospital, Chicago, has been appointed second assistant.

An error occurred in announcing staff changes in our last issue. It was stated that Dr. Mary Reynolds was appointed third assistant *vice* Dr. Harry Bradley resigned; this should be reversed: Dr. Harry Bradley was appointed third assistant, *vice* Dr. Mary Reynolds resigned.

CANADA.—Dr. Daniel Clark, superintendent of the Asylum for the Insane, Toronto, sends us as a curiosity in jurisprudence the following newspaper account of a recent inquest in Toronto: "An inquest was held this afternoon on the body of little Johnny Fellows, who was butchered by his insane mother yesterday. After hearing the evidence, the following remarkable verdict was rendered: John Fellows came to his death on December 7 from injuries inflicted on him by his mother, Elizabeth Fellows; that the aforesaid Elizabeth Fellows did wilfully, feloniously and with malice aforethought, kill and slay John Fellows, her son; that the aforesaid Elizabeth Fellows was insane at the time she committed the crime."

The kitchen and laundry of the asylum at London, Ont., were destroyed by fire on the forenoon of December 2, 1887. The main building, though in some danger for a time, was saved. The fire originated in the drying-room of the laundry.

NOVA SCOTIA.—The following precautions are taken against fire in the Hospital for Insane, Halifax: "Open balconies open out from each ward directly and are of iron, and fire-proof, and are in communication, by a door, with an iron stairway or fire-escape, also in the open air, which enable exit from any ward to take place quite independently of any of the internal facilities. There is, at the same time, access from the outside to any ward or section of the roof by this fixed outside iron stairway, which is not interfered with even though all the verandahs were full of patients. An iron ladder, a permanent fixture, extends from the flat roof of the verandah to ridge of the roof, and a skylight has been placed alongside, which is kept closed by a weight, and can be opened at any time from the inside or outside, thus giving access to the roof and attics by permanent outside conveniences. There is a hydrant, or stand-pipe in direct communication with the general hydrant service, which extends to the roof of each section and is alongside the stairway. There are hose connections and fifty feet of linen hose, with nozzle attached, on each flat in each section (every ward). There is an additional hose with its connections, at the extremity of this pipe, or on the flat roof of each section, at the level of the roof of the main building. The water is turned on at each connection with a 2½ inch straight-way valve, operated by a "wheel" attached and always in place. The result we endeavored to obtain was that one man unassisted (with the ordinary ward-key,) should be able, without delay of any kind, to run a hose-length and stream of water into any ward or attic from the outside, and to be able to do so without running any risk of accident from stairways that could be rendered impassable."

Dr. A. P. Reed, superintendent, informs us that they have placed in addition a means by which in wet or frosty weather an untrained man can go from one end of the institution to the other on the ridge of the roof or to any section, and carry hose with no risk to life or limb.

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RACE AND INSANITY. •

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The subject of race in its relation to insanity, as a causal or modifying factor, is one that has received comparatively little attention. This is undoubtedly due to the difficulty of separating the race influence from others complicating the study; such, for example, as those of climate, habitat, civilization, culture, morals, social customs, etc., etc. In the discussion of the statistics of insanity of any country or people, all these matters come under consideration, and mask, more or less completely, any race idiosyncrasy that may exist.

There is, however, so little doubt that insanity is influenced by race that it is a matter of some interest to study and ascertain as far as possible, how much this race influence affects the frequency and forms of mental disorder. There is a certain advantage afforded for such a study by the fact that the insane population of many of the asylums of this country, particularly those near the large cities, is largely made up of representatives of the various European nationalities, and this is especially the case in the more recently settled portions of the country, where all, native born and foreign, are yet, in a measure, on the same footing as new comers. The facts, however, are not accessible; the published asylum statistics very rarely contain anything more than tables of the nativity of the admissions, almost never any tables showing the forms of mental disorder amongst the different nationalities. If we had such tables, especially for the more western asylums of this country, drawn up with a reasonably uniform system of classification, it would give us a mass of statistics that would be of real value for the determination of many questions in regard to the relations of race to insanity.

Some years ago Dr. E. C. Spitzka* published a paper on this

* *Journal of Mental and Nervous Disease*, VII, 1880. Pp. 613-630.

subject, the same being a discussion of the statistics for several years of the New York City Asylum on Ward's Island, and from it drew several interesting conclusions. So far as we are aware, however, no other article of like scope has since appeared, and it seemed to us that a somewhat similar discussion of additional statistics, varying in some respects from those utilized by Dr. Spitzka, might serve as a small contribution to the literature of the subject. It is our intention also to supplement the discussion of the statistics of the one institution that we have elaborated with that of such other data as have come into our possession from other sources, American and foreign.

The Illinois Eastern Hospital for the Insane, at Kankakee, receives its inmates from all portions of the State. The foreign element in its population, which amounts to rather more than fifty per cent of the whole, also comes from all parts of the State, and besides Cook county, which, with its included city of Chicago, might be expected to furnish a very large contingent of foreign born, there are at least twenty other counties which are represented by a majority of foreigners in the hospital. Of the native born a considerable, but not to be accurately ascertained, proportion are of foreign parentage; the small number of such given in the accompanying tables only represents those in regard to whom the facts could be ascertained absolutely, the considerable number in regard to whom there was only a strong presumption of foreign parentage, being kept out of the tables, or in some instances perhaps counted amongst the Anglo-Americans. Of all the native born hardly more than one-fourth are natives of Illinois, so that, of the whole insane population of the asylum, about seven-eighths are immigrants in the fuller sense of the term.

Up to the first day of October, 1887, there had been received, exclusive of re-admissions, twenty-six hundred and twenty-seven patients, fifteen hundred and eighty-seven males and one thousand and forty females. Leaving out certain cases of organic dementia and of dubious forms of insanity, which for various reasons it was not thought worth while to tabulate, together with those of whose birth and parentage the facts could not be satisfactorily ascertained, the table here given (Table I,) exhibits the proportion of the various types or species of insanity in the different races or nationalities represented in the asylum. The classification used may perhaps appear more complicated than is necessary, but for certain reasons we prefer it to a simpler one. It appears to us that there is a possibility that any peculiarities in

TABLE I.

	Angl. Am.		Engl.		Scotch.		Angl. Saxon Race.		Germ. Am.		Germ.		Holl. and.		Germ. Race Total.		Scand. Am.		Scand.		Scand. Race.		Teuton. Race Total.		Irish Am.		Irish.		Welsh.		Manx.		Celtic Race Total.		French.		Canad. French.		Italian.		Latin Race Total.		Bohem.		Polish.		Russian.		Slavon. Race Total.		Jewish.		African.		GRAND TOTAL.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Mania,	111	70	10	3	3		124	73	5	1	24	17			29	18		1	14	7	14	8	167	99	11	3	19	11	2		1		33	14	2	1	3	5	2		7	6	2				2		1	2	6	4	216	125				
Melancholia,	78	60	3	9	2	1	83	70	5		28	26			33	26	1		21	5	22	5	138	101	2	6	17	12	2	1			21	19	1		9	2			10	2		1			1		1	1	2	1	173	124				
Primary Dementia,	18	7			1		19	7		1	1		1		2	1			2		2		23	8			1	1					1	1			1				1												25	9				
Stuporous Insanity,	8	3					8	3	1		1	1			2	1			4	1	4	1	14	5	1		1					1	1			1				1																16	6	
Paretic Dementia,	43	5	4				47	5	2		12	1			14	1			2	1	2	1	63	7	2		8	2		1			10	3	1			1			2		1				1		2			3	78	13				
Cyclical Insanity,	16	23	1	2	2		19	25	4	1	1	4			5				3	3	3	3	27	33		2	2	2		1			3	4	1					1												1		32	37			
Paranoia,	78	24	7	2	2	2	87	28	4	1	25	7	1		30	8	1		11	3	12	3	129	39	7	1	14	6				21	7			2	1			2	1	1		1		1		3		1		4		160	47			
Epileptic Insanity,	60	26	6	1			66	27	5	1	11	4			16	8			3	2	3	2	85	37	1	2	7	2				8	4	1		2				3										1	3		99	42				
Hysterical Insanity,		6		2			8				2												10					1					1																					11				
Secondary Paranoia,	13	14	2	1			15	15	2		11	4			13				5	2	5	2	33	21			2	12					2	12	1					1															36	33		
Chronic Mania,	42	49	7	8	3	2	52	59	2	1	37	38			39				12	10	12	10	103	108	2	5	39	55		1		41	61	1		1	5			2	5	1					1		2	1		6	149	181				
Chronic Melancholia,	38	30	4	3			42	33	5	1	18	36	1		24	3			19	15	19	15	85	85	2	2	16	29		1		18	32	3		2		1		6		1		1	1		2	1	2	1	1	1	114	120				
Terminal Dementia,	131	59	3	3	2	2	136	64	12	3	77	39	2		91	42	1		51	22	52	22	279	128	14	2	69	31		1		84	33	3	2	1	5	1		5	7	4		1				5		2		8	1	383	169			
Total of each Nat. Insane,	636	376	47	34	15	7	698	417	47	13	246	179	5		298	196	3	1	147	71	150	72	1146	681	42	23	194	165	4	4	3		243	192	14	3	22	18	5		41	21	10		3	1	2		15	1	11	6	25	16	1481	917		

TABLE II.

	Angl. American. Total.			Angl. Saxon. Total.			German Race. Total.			Scand. Race. Total.			Teuton. Race. Total.			Celtic Race. Total.			Latin Race. Total.			Slavonic Race. Total.			Jewish Race. Total.			African Race. Total.			GRAND TOTAL.			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
Mania,.....	17.45	18.31	17.79	17.76	17.50	17.66	9.73	9.37	9.57	9.33	11.11	9.91	14.56	14.53	14.55	13.58	7.28	10.80	17.07	28.57	20.96	13.33	.....	12.50	9.09	33.33	17.60	24.00	25.00	24.39	14.57	13.36	14.22
Melancholia,.....	12.26	15.95	13.67	11.89	16.78	13.70	11.07	13.54	12.04	14.66	6.94	12.16	12.04	14.83	13.08	8.47	9.62	9.17	24.39	9.52	19.35	6.66	.....	6.25	9.09	16.16	11.76	8.00	6.35	7.31	11.68	13.52	12.38
Primary Dementia, ..	2.81	1.86	2.48	2.72	1.67	2.35	.67	.52	.61	1.33	...	.90	2.00	1.17	1.69	.41	.52	.46	2.43	.....	1.61	.....	.....	.....	.....	.....	.....	.....	.....	1.08	.99	1.40	
Stuporous Insanity, ..	1.24	.79	1.08	1.14	.71	.98	.67	.52	.61	2.66	1.38	2.25	1.22	.73	1.05	.41	.52	.46	2.43	.....	1.61	.....	.....	.....	.....	.....	.....	.....	.....	1.08	.65	.91	
Paretic Dementia,.....	6.76	1.33	4.74	6.73	1.19	4.66	4.69	.52	3.06	1.33	1.38	1.35	5.49	1.02	3.83	4.11	1.56	2.98	4.86	.....	3.22	6.66	.....	6.25	18.18	.....	11.76	.....	18.75	7.31	5.33	1.41	3.75
Cyclical Insanity,	2.51	6.11	3.85	2.72	5.95	3.94	1.67	.60	2.04	2.00	4.16	2.25	2.35	4.88	3.28	1.23	2.08	1.60	2.43	.....	1.61	.....	.....	.....	.....	4.00	.....	2.43	2.16	4.03	2.92		
Paranoia,	12.26	6.30	10.02	12.46	6.71	10.30	10.06	.18	7.55	8.00	4.16	6.75	11.24	5.72	9.19	8.64	3.65	6.43	4.86	4.76	4.83	20.00	.....	18.75	9.09	.....	5.87	16.00	.....	9.75	10.73	5.12	8.58
Epileptic Insanity, ..	9.43	6.91	8.49	9.45	6.47	8.34	5.36	.18	4.89	2.00	2.77	2.20	7.40	5.43	6.67	3.29	2.09	2.73	7.29	.....	4.83	.....	.....	.....	16.16	5.87	12.00	.....	7.31	6.67	4.57	5.88	
Hysterical Insanity, .....	.....	1.59	.59	.....	1.91	.70	.....	.04	.40	.....	.....	.....	.....	1.46	.54	.....	.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.19	.45	
Secondary Paranoia,	2.04	3.72	2.66	2.19	3.57	2.68	4.36	2.08	3.46	3.33	2.77	3.15	2.87	3.08	2.95	.82	6.25	3.21	2.43	.....	1.61	.....	.....	.....	.....	.....	.....	.....	.....	2.42	3.59	2.87	
Chronic Mania,.....	6.60	13.03	8.91	7.45	14.10	9.95	13.08	20.30	15.90	8.00	13.88	9.90	8.11	15.86	11.00	16.87	31.77	23.46	4.86	23.80	11.29	6.66	.....	6.25	18.18	16.16	17.60	.....	37.50	14.53	10.06	19.73	13.71
Chronic Melancholia,	5.97	7.97	6.71	6.01	7.91	6.72	8.05	19.27	12.44	12.66	20.83	15.31	7.50	12.48	9.30	7.40	16.66	11.49	14.58	9.67	13.33	1.00	18.75	18.18	16.16	17.00	4.00	6.35	4.95	7.69	13.08	9.75
Terminal Dementia,	20.59	15.39	18.79	19.48	15.34	17.93	30.53	21.87	27.14	34.00	30.55	33.33	24.35	18.79	22.27	34.56	17.18	26.64	12.15	33.33	19.35	33.33	.....	31.25	18.18	.....	11.76	32.00	6.35	21.46	25.86	18.41	23.02
	.08	.74	.22	.00	.18	.09	.12	.01	.08	.70	.07	.54	.87	.....	.60	.22	.30	.57	.22	.02	.06	.02	.00	.00	.01	.03	.18	.00	.70	.56	.07	.35	.16

Disease	Male			Female			Total		
	No.	%	Ratio	No.	%	Ratio	No.	%	Ratio
Mania	111	10	1.0	121	10	1.0	232	10	1.0
Melancholia	73	6	0.6	70	6	0.6	143	6	0.6
Primary Dementia	12	1	0.1	10	1	0.1	22	1	0.1
Secondary Dementia	2	0	0.0	2	0	0.0	4	0	0.0
Paralytic Dementia	42	4	0.4	47	4	0.4	89	4	0.4
General Insanity	10	1	0.1	10	1	0.1	20	1	0.1
Partial Insanity	25	2	0.2	27	2	0.2	52	2	0.2
Hysterical Insanity	60	5	0.5	60	5	0.5	120	5	0.5
Secondary Paranoia	22	2	0.2	12	1	0.1	34	3	0.3
Chronic Mania	4	0	0.0	4	0	0.0	8	0	0.0
Chronic Melancholia	20	2	0.2	20	2	0.2	40	4	0.4
Chronic Paranoia	120	10	1.0	120	10	1.0	240	10	1.0
Total of cases	600	50	5.0	600	50	5.0	1200	100	10.0

Disease	Male			Female			Total		
	No.	%	Ratio	No.	%	Ratio	No.	%	Ratio
Mania	111	10	1.0	121	10	1.0	232	10	1.0
Melancholia	73	6	0.6	70	6	0.6	143	6	0.6
Primary Dementia	12	1	0.1	10	1	0.1	22	1	0.1
Secondary Dementia	2	0	0.0	2	0	0.0	4	0	0.0
Paralytic Dementia	42	4	0.4	47	4	0.4	89	4	0.4
General Insanity	10	1	0.1	10	1	0.1	20	1	0.1
Partial Insanity	25	2	0.2	27	2	0.2	52	2	0.2
Hysterical Insanity	60	5	0.5	60	5	0.5	120	5	0.5
Secondary Paranoia	22	2	0.2	12	1	0.1	34	3	0.3
Chronic Mania	4	0	0.0	4	0	0.0	8	0	0.0
Chronic Melancholia	20	2	0.2	20	2	0.2	40	4	0.4
Chronic Paranoia	120	10	1.0	120	10	1.0	240	10	1.0
Total of cases	600	50	5.0	600	50	5.0	1200	100	10.0

the manifestations of mental disorder that may be due to racial idiosyncrasy may be as much or even more fully manifested in the chronic or secondary forms of insanity, and we therefore include in our classification chronic mania and melancholia, understanding by these terms, respectively, more or less demented terminal conditions, characterized by notable excitement or depression, as distinguished from the more passive and neutral condition comprehended by us under the name of terminal dementia. It would also be of interest could we ascertain whether or not there are any racial or national differences as regards the occurrence of such forms as cyclical insanities, primary dementia, and some others that we have included in our table, but which are represented there by such small numbers as not to warrant any deductions from them. It seemed best to us to use a purely symptomatological classification, and these species naturally fell into it. Any other plan appeared to us less satisfactory; etiological species, if admitted, might, for example, throw light on national customs or morals, but they could have, at best, but an indirect bearing on the race question. In fact, the inquiry is narrowed down to the question of the prevalence of the two great types of insanity characterized by excitement or depression, paranoia, epileptic insanity, general paralysis and terminal dementia; no probable generalizations can be deduced from the small figures by which the other species are here represented. These forms, moreover, are recognized and adopted in nearly all classifications, except the so-called clinical etiological ones, and we therefore are enabled to carry our comparisons beyond the statistics of a single institution, which, of themselves, can furnish nothing conclusive, however suggestive and interesting they may be.

The first of our tables gives the numbers of cases of each form of mental disease in the different nationalities. In order to furnish a more ready *coup d'œil* we have prepared another, (Table II,) somewhat condensed from the first, giving the percentages in place of the actual numbers. The proportionate representation of each form of insanity in the different peoples is much more readily perceived by this, and the comparisons are rendered correspondingly easier.

Considering first the two principal acute forms of insanity, mania and melancholia, the first most striking fact noticeable in these figures, is their greater prevalence amongst the native born, and in the Anglo-Saxon race. We find that, of all cases of insanity in the native born, nearly eighteen per cent are acute maniacs, and

nearly fourteen per cent melancholiacs, while nothing like such a proportion of cases of mania exists in any other nationality represented in numbers sufficient to be considered, and the proportion of melancholiacs is likewise notably less. This is all the more worthy of mention as it is exactly the reverse of the figures of Dr. Spitzka, who found melancholia more frequent in the foreign than in the native born, and acute mania less frequent. Indeed, our figures rather overthrow the first conclusion of his paper, which was "that melancholia (true lypemania) is considerably more frequent among the foreign born than among the native insane population." * * *

The discrepancy is too great to be accounted for by any difference in the classification, and we are inclined to look for its explanation in a difference in the characters of the two asylum populations. The New York City Asylum receives its inmates entirely from an urban population and from a city which is the great gateway of immigration into this country. It seems highly probable, therefore, that melancholia would occur more frequently amongst newly arrived foreigners, first introduced into a new country and strange surroundings, than amongst those who, possessing greater enterprise and having had longer residence, have made their way to homes in the interior States. At the same time the tendency of the city to absorb and develop the defective classes and the committal of recent and curable cases to State and private asylums would naturally tend to reduce the percentage of acute mania and melancholia in the native born. The very small percentages of acute mania and melancholia in the Anglo-Americans in Dr. Spitzka's tables, 10.08 and 9.83 respectively, support this view, for in the average asylum in this country or in Europe, the proportions of admissions, at least, of these two forms of insanity are much greater if we are to judge at all by the published reports. Going over an extensive series of American asylum reports, we find that over twenty per cent of the admissions are put down as cases of acute mania and sixteen to eighteen per cent as of acute melancholia. Very nearly the same figures are furnished by an analysis of the tables of the English asylums whose reports are accessible to us, and we are therefore inclined to accept them as the relative proportions of the two forms, that is, that mania furnishes about twenty per cent and melancholia seventeen per cent of the admissions to the average hospital for the insane. That the figures in our table fall below these is due, in our opinion, to the fact that the Kankakee is, in somewhat

greater measure than is usually the case, a receptacle for the chronic insane—it is not as strictly a hospital as some other State institutions. In this respect it is like the New York City Asylum, though to a less extent, and the conditions are reversed in that at Kankakee it is the foreign element that has the largest representation among the chronic insane. This fact should be taken into consideration in comparing the statistics of the two institutions. We do not feel warranted in deducing from these statistics any conclusions whatever as to the comparative frequency of mania and melancholia in the native population and the foreigners among us taken as a whole.

The showing of the tables as regards the relative frequency of mania and melancholia in each of the different nationalities is of more interest than the comparison between the native and the foreign born. We find in our statistics, that amongst native Americans 17.79 per cent of all the cases of insanity are acute mania, and only 13.67 per cent acute melancholia. These proportions are hardly at all affected by excluding those of known foreign parentage. Amongst the Irish also the cases of mania are in excess, the percentages in the Celtic race (of which the Irish form the bulk,) being 10.8 and 9.17 respectively. Amongst the Germans, on the other hand, these proportions are reversed, 9.57 per cent only, being cases of mania to 12.4 per cent of melancholias. The same is the case with the Scandinavians, the relative percentages being very nearly identical with those of the Germans.

In Dr. Spitzka's table the percentages of mania and melancholia were respectively 10.68 and 9.83 in the Anglo-Saxons, 11.19 and 26.11 in the Germans, and 6.66 and 26.66 in the Scandinavians, a very striking difference, which shows quite plainly that the foreign population furnishes the largest number of recent cases in the Ward's Island Asylum.

Taking next chronic mania and chronic melancholia as we have defined them, we find the former exceeding the latter in all the nationalities except the Scandinavians, but the excess is least among the Germans and greatest among the Irish. In the Scandinavian peoples the depressed form is in very marked excess.

These figures, taken altogether, appear to indicate that the Germanic peoples and Scandinavians are especially liable to the depressed forms of mental disease, and that Dr. Spitzka's conclusion that such is the case is a correct one. Of course these statistics of the two asylums, though they include an analysis of

some thousands of cases, are alone not altogether conclusive, there are the facts of change of home, alien surroundings, &c., to be considered, but they are suggestive, especially when taken in connection with the fact demonstrated by Morselli and others, that suicide is most prevalent among the Germanic peoples. To test the matter further, however, we have gone over such published facts and statistics as were readily accessible from foreign countries. These are not as numerous as we could wish, the types of mental alienation are usually unmentioned in the abstracts of asylum reports and of official statistics that are published in the psychiatric journals, and the original documents are, with a few exceptions, beyond our reach. This is especially the case with those of continental Europe, and we can, therefore, only give a few facts bearing on the question of the relative frequency of mania and melancholia in Germany and Scandinavia, but those few are significant.

Out of thirty-nine hundred and sixty-two patients admitted to the asylum at Hildesheim during the twenty-eight years from 1857 to 1884 inclusive, Dr. Snell* reports twelve hundred and seventy-seven, or thirty-two per cent of the whole number, as cases of melancholia, against nine hundred and sixty-nine cases of mania, or twenty-four per cent. He says, noticing this great predominance of melancholia. "It is melancholia, according to my experience in asylums, and still more outside of them, that is by far the commonest form of insanity. As a rule one meets in the asylums with only the severer forms of melancholia in which the impulse to suicide becomes a matter for anxiety or the excitement is disturbing and dangerous. The lighter forms are but seldom brought to the asylums, and yet they are the most usual types of the disease and greatly outnumber the severer ones."

In the Oldenburg Asylum at Wehnen,† (Dr. Hemkes,) out of fourteen hundred and thirteen admissions between 1858 and 1883, six hundred and forty-four were cases of melancholia, or over forty-five per cent of the whole, while only two hundred and sixty-one, or eighteen and one-half per cent, were cases of mania. In the Königslutter Asylum (Dr. Hasse),‡ there were one hundred and seventy-eight cases of melancholia and only forty-eight of mania out of a total of five hundred and forty-six admissions from 1875 to 1883. In the insane department of the Kgl. Julius hospitals,

* *Allg. Ztschr. f. Psych.* XLII, p. 382.

† *Allg. Ztschr.* XLIII, p. 102.

‡ *Allg. Ztschr.* XLIII, p. 102.

Wurzburg,* from 1873 to 1882 inclusive, out of seventeen hundred and five admissions there were three hundred and fifty-one cases, or nearly twenty-one per cent of the whole, of cases of melancholia to only one hundred and nineteen of mania. In the four Rheinprovinz asylums of Andernach, Grafenburg, Duren and Merzig,† during the years 1876-79, there was a total of twenty-eight hundred and eleven admissions, seven hundred and eighty-six of which, or twenty-eight per cent, were cases of melancholia, and five hundred and eighty-two of mania. Dr. Nasse remarks on the statistics of the Andernach Asylum, that the preponderance of melancholia over mania and the greater curability of the latter (forty-four to thirty-three per cent) are both in accord with the last ten years' experience of Siegburg Asylum. The official statistics of Wurtemberg‡ from 1876 to 1881 show a steady excess of melancholia over mania, and the same appears to be the case in Bavaria. Besides the above we have the figures for one or more years from the asylums at Gottingen, Schleswig, Schwitz, Schussenried and Friedrichsburg, which exhibit the same relative proportions of these two forms of insanity. The only German figures we have found giving a greater proportion of maniacal than of melancholic cases, are those of the Breslau Asylum and the official statistics of Austria from 1878 to 1882 and those of Prussia for 1875-6. Austrian statistics, however, can hardly be called German, and the non-German element must be somewhat represented in those of Prussia, so these possibly do not form so marked an exception as might at first appear.

Our facts are also meagre as regards the Scandinavian peoples, but, from what is accessible, we find in Denmark and Norway the same excess of melancholia as seems to exist in Germany. In 1881 the three Danish Asylums at Roeskild, Aarhus, and Vordingborg§ received a total of five hundred and fifteen patients, of which one hundred and eighty were melancholias to one hundred and five maniacs. Statistics of these asylums for 1879 and 1883 also show similar ratios of these two forms.

The Norwegian official statistics for 1883|| show, out of a total

* *Allg. Ztschr.* XL, p. 705.

† Die provinzial Irren, Blinden, u Taubstummen, Anstalten in Rheinprovinz. Dusseldorf, 1880.

‡ Abstracts in *Schmidts Jahrb.* Vols. 185, p. 218, 193, p. 111, and 206, p. 107.

§ Beretninger om den Kjobenhavenske, den Noerroydske, Oestifternes og den Vieborgske Syndssygeanstalt i 1881. Kjobenhavn, 1882. *Allg. Ztsch.* XL, p. 464.

|| Norges officiella statistik—Oversigt over Sindssyge Verksomhed i Aaret 1883, Christiania, 1884.

of nineteen hundred and fifty-three inmates of asylums, five hundred cases of melancholia to three hundred and eighty-five of mania, or 25.5 and 19.7 per cent respectively. In the Gaustad Asylum at Christiania, from its foundation up to the year 1871,* melancholia furnished forty-one and a half per cent of all the admissions, or eleven hundred and forty-one out of a total of twenty-eight hundred and thirty-two. During the same period there were received seven hundred and sixty-seven cases of mania, or twenty-seven per cent of the whole number of admissions.

So far there is a striking general uniformity between the German and the Scandinavian figures as regards the relative frequency of mania and melancholia, the latter form being, as a rule, largely in excess. The Swedish statistics, however, reverse this and mania seems to be, in Sweden, most prevalent. The admissions to Swedish asylums in 1884-5 according to Dr. Hjertstrom,† numbered fourteen hundred and forty-eight, of which four hundred and ninety-two or nearly thirty-four per cent were cases of mania, and four hundred and thirty-seven, or thirty per cent cases of melancholia. The population of the asylums in the year 1880, as given by the same authority, contained a still larger proportion than the above of maniacal, as compared with melancholic cases. It is not easy to explain the difference in this respect between allied peoples of the same race, that is here apparent, but it is possible that there are reasons for it in the physical surroundings and national characteristics. There certainly seems to be a marked difference as regards the frequency of insanity between Norway and Denmark and Sweden, it being much less common in Sweden than in the other Scandinavian countries. At the International Medical Congress at Copenhagen in 1884, Dr. Steenberg,‡ reported the ratios of insane to the general population as 18.5 to every thousand in Norway, 16.6 in Denmark, and only 15.6 in Sweden. That is, there is one insane person to every five hundred and forty inhabitants in Norway, and in Sweden one to every six hundred and forty. Dr. Steenberg says that insanity in Norway and Finland, where life is hard and uneventful, shows itself very largely in melancholia with religious exaltation, which passes rapidly into dementia. The different Scandinavian nationalities are not separated in our tables, but on reviewing the registers and taking each nation by itself, we find that acute melancholia is nearly

* Bericht aus dem Asyl. Gaustad. *Norsk. Mag.*, 3 R. I. G., p. 465.

† Ruckblick auf die psychiat. Literatur Schwedens. *Allg. Ztschr.*, XLIII, p. 168.

‡ *Ann. Med. Psychologiques* XLIII, 1885, p. 9.

twice as frequent as acute mania amongst the Danes and Norwegians, while amongst the Swedes alone the two forms occur with almost equal frequency, melancholia being still slightly in excess. The figures, however, are too small to give this fact, by itself, any very great significance.

We have already noticed the great prevalence of chronic mania, or secondary dementia of all degrees with excitement, in the Celtic race, in which it forms over twenty-three per cent of the whole. Acute mania is also more frequent amongst the Irish and other Celts than melancholia, though in our tables, owing to the smaller proportion of recent cases, it does not show so large a difference or reach so high a figure as among the Anglo-Saxons. Taking, however, the statistics of all the Irish asylums that we have we find the relative proportions of mania and melancholia, both in the admissions and in the inmates remaining, to as three to one, a greater relative predominance of mania than is met with in any other race except the African. Our own figures for the African race are too insignificant to call for special consideration, much less to warrant any conclusions, but we have in the reports of one or two southern asylums some additional data that may be of service, and which seem to give support to the statement that maniacal insanity is most frequent in the colored race.

Out of sixteen hundred and ninety-one colored patients admitted to the Central Lunatic Asylum at Richmond, Va., up to the year 1886, eight hundred and eighty-two are reported as cases of mania and only fifty-nine as cases of melancholia, a proportion of about fifteen to one. In four years for which we have the reports of the South Carolina Asylum for the Insane the total of colored admissions was four hundred and fifty-three, of which one hundred and twenty-nine were cases of mania and thirty-six of melancholia. The same great excess of maniacal cases is met with in the published admissions to the Eastern North Carolina Asylum for colored people. Allowing for a large amount of erroneous diagnosis, these figures still show that insanity in the African race in the condition it is met with in the United States, is especially and predominantly of the exalted or maniacal type. This is what would be most naturally expected judging from the general characteristics of the southern negro.

As regards the other European races than those already mentioned the figures by which they are here represented are too small to call for their discussion. Prof. Verga states that in the Italian asylums, mania is regularly in excess of the depressed or melan-

cholic* forms of insanity, including in the latter the hypochondriacal cases. He gives the relative percentages of mania and melancholia as about seventeen and twelve respectively. In France also we believe that mania is more frequent in asylums than melancholia, though we have not the figures to show this. Our data are also very meagre as to the Slavonic race—the statistics of the Poltawa asylum for 1882 and 1883 show a preponderance of melancholia while those of the Royal Croation Asylum at Stenjevec for 1884 and 1885 reverse this, mania being there most frequent. Of course this is inconclusive, but from what we know and have read of the national characteristics we should think it not improbable that melancholia is more frequent amongst the Russians than amongst the Bohemians and southern Slavonic peoples.

Making all due allowance for faults of classification and other sources of error, it appears to us that the evidence from all sources points to the conclusion, *that, in European races, melancholic or depressive types of mental disorder are most frequent amongst the Germanic and Scandinavian peoples.* The weight of evidence seems to support this view, and it may be that the apparent exceptions are not really as exceptional as they appear. Taking, for example, the apparently conflicting statistics of Sweden, where melancholia is seemingly less frequent than mania, we find hardly four per cent more of cases of mania than of melancholia. We are compelled to use exclusively the statistics derived from asylum reports, for there are no others available, that show the frequency and proportions of the various forms of insanity. Mania is the form of insanity of all others that first seeks asylum treatment; it is the one form that from the beginning is least suited for treatment at home. Melancholia, on the other hand, as Dr. Snell says, in the remarks already quoted, only reaches the institutions in its severer phases, when it has become dangerous or too troublesome for family care. It is natural, therefore, to suppose that a country which has asylum provision for only a small portion of its insane, should have its quota of maniacs better represented in its institutions than are its melancholiacs, and this disproportion should be the more pronounced the smaller the capacity of the hospitals. According to Dr. Steenberg only 24.3 per cent of the insane in Sweden are in the asylums, while in Norway 33.1 per cent have hospital accommodation, a difference of nearly nine per cent.

* *Archivio Italiano per le Malatti Nervosi*, January, 1887. Abstract in *Allg. Ztschr.* XLIII, VI.

Under these conditions it is not altogether improbable that this nine per cent deficiency in hospital accommodations may account for the four per cent excess of mania in the Swedish asylums.

It seemed to us of interest to ascertain, so far as our opportunities of observation allowed, whether physical characteristics appeared to have any relation with the occurrence of depressed or exalted conditions of mental disorder. We can give here only the result of the examination as to complexion and color of hair and eyes, or rather as to the two generally recognized types of blonde and brunette. Absolute blondes are not very numerous, but taking as of the light type all such as have fair or florid complexions, hair brown or light colored, and blue or grey eyes, we find them decidedly preponderating amongst the melancholiacs. Out of two hundred and ninety-four cases of acute melancholia, (excluding Africans), we found this combination in one hundred and sixty-three, a rather larger proportion than will be found in the asylum population taken as a whole. In other words, the blondes, or such as are commonly called such, exceed all others amongst our melancholiacs in the ratio of nine to seven.

The brunettes, on the other hand, seemed to be in slight excess amongst the maniacal cases. Out of the twenty-three hundred and ninety-eight patients, three hundred and forty-one were cases of mania, or about one-seventh of the whole number. This is very nearly the proportionate representation of this species in the average asylum population given by Mendel, but this proportion is only made up by the excess of maniacal cases among the Anglo-Americans. Assuming the normal average percentage of this form as fourteen, which is about Mendel's figure, we have the Anglo-Americans exceeding it by nearly four per cent, and the foreign born falling on the average as much as three per cent below it. Only the Latins (French, French Canadian and Italian) and the African race show a larger percentage of mania than the native American in our asylum population. The reason for this is, we take it, to be found in the fact that the proportion of recent cases is so much smaller in case of the foreign than in the native born.

Two hundred and seven individuals are counted in our table as primary paranoiacs, or cases of primary delusional insanity, and sixty-nine as cases of secondary paranoia. In making the diagnosis of these cases the histories were considered as far as possible, and only such cases of secondary insanity as showed delusions, without marked excitement or depression, or any decided degree

of dementia, were counted as secondary paranoia. Otherwise we might have enlarged the number very considerably at the expense principally of chronic mania and melancholia. As we have limited the species, paranoia appears, according to our statistics, to be most frequent in the Anglo-Saxon race, its percentage considerably exceeding that of any other. Nevertheless, Mendel says that it is more frequent than mania in Germany, which would raise its proportion considerably above what we make it in this country, even amongst the native born alone. There is a large range of variation as to the numbers reported as of this form of insanity in foreign and American asylum statistics, and it appears probable that there is also a considerable variation in the ideas conveyed by the terms paranoia, *ecnoia*, *verrücktheit*, monomania, &c. It is hardly worth while, therefore, to attempt to make any extensive race comparisons as to this form. It is somewhat significant, however, that the native born outnumber the foreigners, both amongst the paranoiacs and the epileptics, and that these two forms of mental disorder seem, so far as our statistics show, to be less frequent amongst foreigners in this country than amongst foreigners in their own native lands. The large proportion of epileptic cases amongst the native born in our figures is partly accounted for by the fact that the Kankakee asylum has taken in from the rural counties of all portions of Illinois a considerable number of cases that have been rejected by the other State asylums.

Ninety-one individuals, or 3.75 per cent of the whole number of admissions were general paralytics. Nearly half of these were received from the city of Chicago, which furnished about one-third of the total admissions. The percentage of this form is small as compared with that of foreign countries, and it shows that this disease is certainly not yet as prevalent in the State of Illinois as it is even in some other portions of the United States. The cases were all diagnosed with care, and we have included all that we could conscientiously class under this head; indeed it has been a matter for surprise to us, judging from experience with it in the city of Chicago, that the cases were not more numerous. Yet in this small percentage we find the native born predominating, the percentage of parietic dementia in the Anglo-American being 4.74 as against 3.06 in the Germans, 2.98 in the Irish and Welsh, and 1.35 in the Scandinavians. In quite a proportion of the cases there was a luetic history and a suspicion of syphilis in many others; in fact it could be positively excluded in only a small

number. In one or two cases (not included in our table) in which general paralysis had been diagnosed by competent practitioners, with syphilis as the assigned cause in the papers of commitment, there was, after a lapse of years a great improvement, and indeed apparent recovery.

Our figures agree with those of Dr. Spitzka, in showing that it is not the foreign born in our population that furnish, to any great extent, the cases of general paralysis, and the reasons given by him for this fact, viz.: that paretic dementia is a disease of races of high organization, and that the Anglo-Saxon race, which is of all others the one in which there is the most feverish mental activity, is specially prone to this affection, may be a correct one. Still we have, as against this theory, the fact that nowhere in this country is general paralysis as frequent as in some other lands whose inhabitants are not generally supposed to be cerebrally more active than our native population.

Only one nationality shows here a greater percentage than is attributed to it at home—the Irish, and they seem to be fully as liable to paresis, in this country, as other foreigners, however infrequent it may be in their native land. It appears probable that race has less to do with the frequency or infrequency of general paralysis, than other circumstances, such as occupation, social habits, morals, business worries, traumatisms, etc., and more than anything else in our opinion, specific infections and habits of general dissipation.

The very large proportion of terminal dementia amongst foreigners calls for special comment. If we include under terminal dementia, as we have defined it, the forms of secondary insanity, classed as chronic mania and melancholia, which are both more or less demented conditions, we have in every hundred Americans thirty-seven terminal dementes, a figure which is very slightly increased if we take the Anglo-Saxon race as a whole. But among the Germans we have forty-nine, sixty-one and a fraction amongst the Scandinavians, and nearly sixty-five amongst the Irish, of cases of terminal dementia to every one hundred insane. The most natural and obvious suggestion from this state of affairs is that an undue proportion of the defective classes of Europe is unloaded on our shores, and this view is supported by the further fact, so well shown by Dr. Foster Pratt,* that the foreign born insane are altogether out of proportion to the numbers of foreigners in the general

*A STUDY OF THE TENTH CENSUS. A paper read before the *American Public Health Association*. Detroit, 1883.

population. In Illinois the foreign born, according to the census of 1880, number less than six hundred thousand out of a total of over three millions, while they furnish twenty-one hundred and fifteen of the insane out of a total of fifty-one hundred and thirty-four. In other words, less than one-sixth of the population furnishes two-fifths of the insane, and a majority of those of the more chronic and hopeless class. It would almost appear from this, taken together with the other facts as to pauperism, &c., stated by Dr. Pratt, that immigration is a bad thing for the country, but the facts require some investigation to correctly ascertain the causes of this proportional excess of insane amongst foreigners in this country.

There is little doubt but that a certain number of defective individuals are intentionally sent to this country, much in the same way as they are transferred from one county or State to another in the United States itself. This class, however, by itself, can furnish only a minute proportion of the foreign born contingent in our insane. There are other more probable causes for the excess of foreign insanity in our country than its intentional shipment to our shores. The immigrants come to us as a rule from lands where the ratio of insanity is much higher than in this country amongst the native born, and have therefore, it may be presumed, a greater liability to hereditary taint; so far they may be considered as defective. They usually belong to the poorer and uncultured classes, and come to this country with, in many instances, exaggerated expectations, which are doomed to be disappointed. They find themselves thrown at once into strange surroundings, and into a civilization which, in many respects, is different and more trying than that to which they have been accustomed. While the abler and more energetic individuals may and do do well and make some of our best citizens, there are very many others who fail in the struggle, and, so to speak, lose their *morale*, than which there is hardly any general condition more conducive to mental and moral failure. Besides this there is the fact of homesickness, to which the excess of melancholia amongst the foreigners in the New York City Asylum was attributed by Dr. Spitzka. This appears to affect foreigners more especially in the Eastern States—in the last published report of the Ward's Island Asylum we find even the Irish with all other foreigners, showing a larger proportion of melancholiacs than of maniacs. Still another cause, and not the least one, is intemperance, which is much more general amongst foreigners than amongst natives, according to our observation.

The same causes that tend to produce a greater proportion of insanity amongst the foreign born in this country, than amongst the natives, also affect the prognosis of the disease. The curability of mental disorders in our asylums appears to be decidedly greater amongst Americans than foreigners. Dr. H. M. Hurd* rates first in relative curability the native born, next English (including Scotch and Canadians), next Germans, and last of all the Irish. This agrees in the main with our own observation, and we should put the Scandinavians a little before the Germans in the order of curability. Dr. Hurd finds the native born colored or mixed African and white races, almost without exception incurable, which does not agree with our experience, as we have seen a very fair proportion of recoveries amongst them.

Four thousand and seventy-five patients admitted to the Illinois Northern and Eastern Hospitals at Elgin and Kankakee up to October 1, 1886, were very nearly equally divided between native and foreign born, there being two thousand and eight of the former and two thousand and sixty-seven of the latter. The percentages were respectively 49.3 native and 50.7 foreign born. There were six hundred and forty-two recoveries, of which three hundred and ninety-three or sixty-one per cent were native, and two hundred and forty-nine or thirty-nine per cent foreign. To state it another way, 19.5 per cent of the native cases admitted recovered, while of the foreign admissions the recoveries were only about twelve per cent.

The Iowa Hospital for the Insane also tabulates in its reports its recoveries according to nativity. Its admissions, as stated in the last report (1887,) were up to that date sixty-six hundred and sixty-five. Of these forty-seven hundred and eighteen were native and eighteen hundred and eighty-seven foreign, or 71.43 and 28.57 per cent respectively. The recoveries during the same period were nineteen hundred and sixty-nine, fourteen hundred and eighty-six of which were native, or 75.5 per cent of the whole, and only four hundred and eighty-three foreign. Of the whole number of native admissions, therefore, thirty-one and a half per cent recovered, of the foreign admissions less than twenty-three per cent.

These are the statistics of only three institutions, but they are all we have accessible, and they certainly furnish a very strong indication of the cause of the great excess of terminal dementia and secondary insanity generally amongst the foreign born in this country. That the figures of the New York City Asylum as

* Report of Eastern Michigan Asylum, Pontiac, 1884, p. 41.

published by Dr. Spitzka do not give this proportion of terminal dementia amongst foreigners is not surprising, when we consider that there the statistics themselves show that it is the foreigners that there furnish the bulk of the recent cases and the native population, the largest proportion of the chronic ones. New York is probably the place where a great deal of the foreign insanity which is met with in the other parts of the country under the various forms of secondary dementia, first takes its start.

In conclusion we would state that we have not ventured to touch in this discussion very many interesting points that have suggested themselves during the preparation of this article, which if followed out would have unduly extended its limits, and would have entailed more study and statistical research than we would have been able to give to them. We have utilized only a very small portion of the great volume of facts that, for the most part, is contained in the hospital registers and documents to which we have had access, either as a whole or in part. The subject is not easily exhausted, nor can many questions as to the relations of race and insanity be definitely settled. Nevertheless it appears that the following deductions are permissible, viz.:

1. That in the white race the depressive types of mental disease are most frequent in the Germanic and Scandinavian peoples, and least so in the Celts; the reverse of this appears to be the case as to the exalted or maniacal types.

2. That general paralysis is not a disorder to which any race is immune, but one that depends upon causes independent of racial or national peculiarities.

3. That the well known fact that insanity is much more common amongst the foreign born than amongst natives in this country, is not to any great extent explainable by the shipment of the defective classes of Europe to America. The "cranks" and epileptics and other neurotic individuals do not appear to be represented, in due proportion even, amongst the foreigners in our asylums. The cause of the excess of foreign born insane in this country is, it seems probable, to be looked for mainly in the fact that, supposing the immigration to include only its proportion of persons below the average of mental strength and flexibility, the change of scene and associations, the difficulties of beginning life among them, disappointments, homesickness, and all the other accidents and trials that befall the newcomers, together contribute to break down mentally a vast number who under other circumstances would have escaped, and largely contribute to the mass of insanity in this country.

THE RELIGIOUS DELUSIONS OF THE INSANE.*

BY HENRY M. HURD, M. D.,

Superintendent of the Eastern Michigan Asylum, Pontiac, Michigan.

Religion has to do with the relation between man and his Maker. To every individual it has an inward, hidden development, and an outward manifestation. It is a combination of precepts and actions, formulated beliefs and corresponding duties. It excites the highest hopes and stirs the deepest fears known to man. In its highest sense it is spiritual and exalting—the noblest aspiration of the human soul, the communion of mortal man with his immortal Creator, the homage of the weak and finite to the all-powerful and infinite. In its lowest sense it becomes dogma and ritual—an external manifestation without an in-dwelling spirit. Religious sentiments are innate, but their development depends upon age, natural characteristics, education, mental peculiarities, habits of thought and modes of expression. In childhood they are largely the result of education, and have an emotional rather than intellectual origin. Later in life, if the intellectual training of the individual is limited and his mind is not disciplined to thought or reflection, a similar emotional phase of religious feeling gives rise to ecstasies, raptures, fears, hallucinations of vision or hearing, and irrational conduct. In persons possessing mental training, religious sentiments have an intellectual origin, and the emotional nature being affected through the intellect is subsidiary to it and held in wholesome restraint. In proportion to the degree of mental discipline, religious sentiments become matters of the intellect as well as of the emotions. When symmetrically developed they have to do with the emotions, the intellect and the daily life alike.

The predominant characteristics of religious sentiments being hope and fear—a hope of eternal reward and a fear of lasting punishment—it is evident that when these sentiments are deranged there must be morbid hope and morbid fear. The insane man may, on the one hand, believe himself to be an exalted personage, under the patronage, protection and blessing of the Deity—possibly Deity itself—or, on the other, under the wrath of God, an outcast, a sinner, a blasphemer, and unfit to receive the slightest mercy.

* Read before the Ninth International Medical Congress, held at Washington, D. C., September 5th-10th, 1887.

Between these extremes every phase of religious sentiment may exist. The asylums contain "Gods," "Saints," "Virgin Marys," "Mediators," "Kings of kings and Lords of lords," "The Lord's Vice-Gerents" without number, and an equally numerous throng of "Fiends," "Devils," "Lucifers," "Fallen Angels," "Dragons," and the like.

I will now proceed to consider more at length the delusions which are developed in different forms of mental disease.

1. *The Religious Delusions which accompany the Mental Development of Over-stimulated and Injudiciously Educated Children.*

These delusions are apt to take the form of morbid fear. The child being morbidly conscientious and impressible, and his reasoning powers imperfectly developed, his emotional nature is stirred unduly by vivid descriptions of the joys of heaven and the pains of future punishment. Realizing but little of the ethical side of religion, he confounds the emotional state which accompanies religious observances with religion itself. The moment he fails to derive pleasure and an emotional glow from prayer or praise he fancies that some duty has been neglected or improperly performed. Hence he becomes harassed by fears, tormented by doubts and overwhelmed by remorse for fancied misdeeds or sins of omission. The following case illustrates this type of disease:

"E. O., aged nine years; weight fifty-one pounds; was decidedly below the average in height, and possessed a neurotic temperament. He had been healthy and vigorous until six years of age, when he had a tedious illness, accompanied by a discharge from the right ear, and was afterwards delicate. Owing to ill-health he had not been allowed to go to school until eight years old, but his subsequent development had been precocious. He had applied himself diligently and had succeeded much better in his studies than other scholars of the same age. He had also attended Sunday school with painstaking fidelity, and had taxed his memory much to commit verses from the Bible. He had from infancy been morbidly conscientious and anxious to do right. Six months prior to his coming under observation it was noticed that when he attempted to say his prayers at night he was not sure he had spoken them correctly, and wished to repeat them again and again until they were 'perfect.' On some occasions he spent half the night on his knees, or until sleep overpowered him in this attitude of devotion. This condition under injudicious stimulation in

study, increased progressively during the following six months, until he became forgetful, absent-minded and the victim of imperative conceptions."

The predominant religious delusions in nervous children at this age are, as might be expected, when their half-starved and over-stimulated brains are considered, essentially those of fear and apprehension. The delusions of this class have much in common with the following, which will now be considered:

2. *The Religious Delusions characteristic of the Insanity of Pubescence.*

The characteristics of the Insanity of Pubescence are periods of stupidity, mental hebetude, listlessness, indifference and lack of power of application, alternating with periods of elation, restless excitement, uncontrollable impulses and moral perversions. During the period of mental hebetude there are great physical and mental depression, which in the religiously educated give rise to a fear of death and consequent eternal punishment, and engender a strong desire to do some religious act as a penance, or more probably, to purchase peace of mind and inward satisfaction. The boy or girl desires to join the church, or to go upon a mission, or to sacrifice some cherished luxury, and is seemingly absorbed in religious observances. The religious zeal, however, is short-lived and never lasts through the succeeding period of elation. Such persons, as a patient once said to me, in relating her own experience, "are converted every winter, but backslide during the summer." When depressed they are scrupulous of religious forms and ceremonial observances; when elated, all restraint is thrown to the winds. In the former state they derive much comfort from religious exercises; in the latter they are irreverent and often blasphemous. Unlike genuine cases of melancholia, their religious assiduity seems to bring relief and a degree of satisfaction. The condition under consideration is not so much one of actual delusion as of morbid feeling and vague apprehension. Such patients become observant of little matters, and attach great weight to the consequences of the neglect of a single religious duty. One school-girl, for example, neglected, as had been her wont, to pray prior to opening a letter from home, and when she tore it open, found, as she believed in consequence of her neglect, an announcement of the death of her mother. The feeling is not developed on account of general sinfulness and wholesale wrong-doing, as in melancholia, but it is rather excited by omissions to do minor acts

of religious worship, or whatever may have been prescribed by the minister or priest as the full measure of religious duty. There is little true introspection.

3. *The Religious Delusions of the Insanity of Masturbation.*

The delusions of the victims of self-abuse vary in character at different stages of the insanity of masturbation. At the outset, as might naturally be anticipated when the neurotic organization and age of the victims of this habit are taken into consideration, the phenomena of morbid fear predominate. To these are added a study of the Bible and a habit of introspection. The patient fears that he has committed the unpardonable sin, and suffers from remorse, gloom and mental distress. He redoubles his efforts to make amends for fancied wrong doing, and is scrupulous in all religious observances. As not unfrequently happens in similar morbid mental phenomena, sooner or later a transformation of the delusion occurs, and the person who has committed the unpardonable sin finds himself singularly forgiven, blest and holy. Delusions of religious superiority develop, and with other evidences of mental deterioration, a silly vanity in religious matters. The patient has visions, trances, hallucinations of hearing, raptures and ecstasies. The connection between self-abuse and religious delusions is probably to be ascribed to a combination of causes. At first religious delusions originate in a fear of deserved punishment for the violation of Nature's laws. To relieve this burden, consolation is sought in reading the scriptures and in religious exercises, and the morbid fervor thus engendered soon leads the patient to the opposite extreme. Eventually he believes himself highly moral and superior to his associates and surroundings. A second factor in producing it is a general nervous erethism or emotional susceptibility which may be considered the direct result of the vicious indulgence, and is developed at the expense of the higher faculties. The final factor is an actual weakening of the intellectual centres from exhaustion and premature mental decay. A process of transformation thus goes on from year to year until the intellectual centres are in practical abeyance, and the emotional nature assumes complete control. In the analysis of religious delusions it should not be forgotten that for their development a substratum of religious education must generally exist. When there has been no religious training in childhood and no religious bent given to a man's nature, the effect of self-abuse is not to develop it. (This however is not invariably true.)

In the latter case the effect is shown in hypochondriacal fancies, a silly vanity, a sickening egotism, etc. Many illustrative cases may be given of this form of religious delusions, but the annexed case must suffice.

The following case illustrates the effect of masturbation to produce religious delusions in an organization predisposed to mental disease. It is fortunately in an individual who possessed considerable ability to analyze and describe morbid mental states:

"G. B. H., aged 41, was single, without hereditary tendency to mental disease, a teacher, not a church member, but a believer in spiritualism, of a studious and retiring disposition, not addicted to alcoholics, tobacco or opium, a masturbator for many years, and a man who had never been successful in business. He had been aspiring and ambitious, but had lacked ability to bring himself into notice. In pursuit of his calling as a teacher of elocution he had wandered about the country. At the age of twenty-one he heard a voice saying to him, 'Come up higher,' which seemed to have been a distinct aural hallucination. This heavenly admonition subsequently gave him a strong desire to elevate the human race. Poverty humiliated his pride by making it necessary for him to dress shabbily and stint himself in his daily allowance of food to such a degree that his health suffered. Five years ago, while in the west, he was induced to investigate spiritualism, and afterwards believed himself a medium chosen by God to a special work in the elevation of the human race. Four months previous to his admission to the Eastern Michigan Asylum, in consequence of hardships, privations and probably excesses in masturbation, he had an attack of excitement and was treated at an asylum at Taunton, Mass., for about two weeks, when he became quiet and was able to be removed to his home in Michigan, where he maintained composure for several weeks, although obviously unnatural in manner. He suddenly however became 'the Medium of God,' and was much excited for several hours. He thought God directed all his thoughts and acts and would make him a great orator so that he might be the medium of spreading truth throughout the world. When admitted to the Eastern Michigan Asylum in October, 1885, he was free from special excitement, but vain and self-important in manner. He was proud of his voice and was disposed to practice singing in a discordant fashion, and had much to say of his divine mission. He was disposed to withdraw himself from the society of his associates to commune with his own thoughts. He also had tendencies to denude him-

self, but was ashamed when discovered nude and always had a plausible excuse for his conduct. After a month he wrote to a relative in reference to hallucinations of hearing and a fancy that he could converse with persons at a distance, and seemed to be making an honest effort to correct certain morbid impressions. In this direction his efforts were seconded by a brother, who in a long interview told him frankly of his delusions. For eight months thereafter he was quiet, self-controlled, able to participate in literary exercises and to give recitations and readings. He seemed free from delusions and was thought to be well enough to go away from the asylum. He complained however of headache after slight exertion, and an inability to concentrate his thoughts. He subsequently confessed that his mind was not free from religious delusions during any portion of this time, and that he had continued the habit of masturbation. During this period of quiet he wrote the following letter:

PONTIAC, August 19th, 1886.

MY DEAR BROTHER:

* * * * * I am hopeful of success afterwards as my trust is in God. Through all the years of my adverse life, previous to the last, I have trusted him in a dim, blind way, for doing one's duty as he sees it is putting faith in Deity. During the last year—a tithe of whose bitter experiences you know not—my trust was implicitly in God. One night at Onset, while lying awake, sleepless as usual and suffering, a voice that filled me with its vast impressiveness said, 'My child, tell your mother that out of pain shall come blessing; out of pain shall come blessing; out of pain shall come blessing.' That I will find it so I have no doubt. Through all the fiery trials of the past fifteen months which subjected me to so much reproach I trusted that great Voice. At any time I could have stopped and turned back had I not been constrained by a sense of duty to go on. In every fiery trial and in hours of darkest doubt has come that same voice saying, 'Trust in God,' 'Your triumph cometh,' and lesser voices would say, 'Be brave, be strong, be true.' Oh that calm, steady, 'Trust in God,' how it has rung silently through the consciousness of centuries! May we all follow it up the long path of years till it widens forever into the fields of joyous and sublime endeavor! * * * * *

I remain yours affectionately,

G.

Soon after he showed increased mental disturbance, and on one occasion tried to take liberties with female employes, under the direction of the 'Eternal Voice,' and thought he had frequent communications from the spirit world. During the following two or three months he had periods of severe mental disturbance coming on at midnight, during which he called loudly upon the 'infinite One.' On several of these occasions he attempted to

mutilate himself by tearing out his genitals in order that he might suffer pain for 'Jesus' sake.' During the daytime he was free from excitement and talked of his midnight experiences as the workings of a diseased mind. He confessed to an excessive indulgence in masturbation, under the impression that he was bringing himself thus into closer relations with the spirit world. He also had impulses to pray with his associates and to read his Bible diligently. In a letter he said that he had 'sought truth and love and happiness through Spiritualism instead of Christianity,' and had been deceived, and announces his conversion to a 'love of the Lord Jesus.' He added, 'the Lord Jesus actually speaks to me often, very often, and counsels me what to do, so great is my weakness and ignorance of the Bible and of the Christianity I have despised.' Soon after, impelled by an idea of self-sacrifice, he assaulted his attendant with the intention of bringing injury upon himself. After a period of great mental disturbance of several weeks' duration he suddenly cleared up and spoke intelligently and sorrowfully of his condition. He desired to be rid of the voices which he considered the causes of his attacks. These he explained were not audible voices, but thoughts which came into his mind in the shape of well-formed sentences which recurred again and again without any effort of his own, and in fact contrary to his volition. They warned against the errors of spiritualism, and urged him to deeds of self-denial for the cause of Christ. They even gave him explicit commands to do acts which were distasteful to him. At first he struggled against and overcame them temporarily by an effort of the will to devote his attention to other matters. Soon, however, he lost his ability to withstand them and eventually became enslaved. A short time after this conversation he again became wholly dominated by suicidal impulses. He refused food, endeavored to mutilate himself and recklessly exposed his life and health. For three nights in the depth of winter he denuded himself of clothing and was sleepless from bitter mental and physical agony. At the end of three months he came to himself and thus described his sad condition. He said the 'influence,' as he termed it, stole upon him imperceptibly. It came as a 'gentle, benign, fatherly voice,' and spoke persuasively and not commandingly. It came in the attitude of 'a loving all-wise father to an erring child.' Slowly he was forced to listen. As its influence deepened he felt called upon to make some form of self-sacrifice. At first a sacrifice was exacted in a quarter where he experienced the strongest desire. If by

previous fasting he had become ravenously hungry he was commanded to abstain from some article of food. The voice said, 'My child are you willing to reject this portion?' and he found himself unable to turn a deaf ear to the seductive tone. At first he was told that his bare willingness to abstain from food was sufficient, but soon actual abstinence was required, sometimes of some article of food, but more frequently of the entire meal. Afterwards his past life was unfolded to him with all of its errors, and he was asked if he were willing to make amends. He was informed also how he might avert certain anomalous sensations which he believed to be threatening epilepsy. Old faces came back to him with great distinctness. At one time the face of a former mistress, who had given birth to a child a few months after her marriage to another man, appeared to him. Her child might possibly have been his, and this possibility became a reality in his disordered mental state. The voice told him that this child had inherited epilepsy from him and died finally from this disease. He was commanded to expiate this sin by passing nights without sleep, denuded of clothing and in bodily torture from extreme cold. It is a curious circumstance that in his natural state of mind he had no actual faith in the existence of God, but was an agnostic. His delusions gradually disappeared, and at the end of four months he left the asylum on trial."

4. *The Religious Delusions of Paranoia.*

In paranoia we have a mental organization which is congenitally abnormal and predisposed to perverted action. In the great majority of cases there exists as early as puberty in both sexes a precocious sexual excitability which gives rise to an unnatural religious susceptibility and induces boys to plan to enter the ministry or to become priests, and girls to lead a life of devotion. Later in life the same persons become introspective and inclined to revery and day-dreams. As a rule they are inactive in their habits, disposed to read the Bible, to seclude themselves from society and to scrupulously observe religious ceremonies and services. They have a strong religious bias and are apt to embrace peculiar views or to be attracted by the latest novelty in religion. The immediate cause of the development of religious delusions is generally some physical ailment, an illness or a severe mental or physical shock. In rare instances they are the outcome of the delirium of fever; more generally, the result of physical or nervous exhaustion, and most frequently the sequence of excesses

in masturbation or sexual exhaustion. The development of the full formed disease is usually marked by sleeplessness, hallucinations of vision or hearing, strange bodily sensations or acute mental distress. One patient after praying for several nights in a corn-field in great agony of mind, felt the burden of sin fall from his aching shoulders and saw it glide away in the darkness, dark, sinister and, to use his own expression, "like a small woodchuck." Another recovering from typhoid fever had a vivid dream of heaven in which he saw himself seated upon the throne a recipient of divine homage. Ever after when fatigued or exhausted this grateful vision recurred to him until he finally had a fixed delusion that he was Christ. Another after a period of prayer, fasting and vague distress, at the age of 19 years, heard an audible voice conferring upon him the gift of prophecy. Such conditions of nervous tension, generally due to a physical cause, have been aptly termed by Krafft-Ebing "receptive stages" of paranoia, during which ideas and fancies are rapidly elaborated but imperfectly assimilated by the mind of the individual. The mental concepts in this stage may be likened to paintings in a picture gallery. They are mental images which do not seem to have any intimate connection with his own personality. He views them as a spectator simply, and feels interested in them in a general way. Like all other states of mental exaltation, this condition is not permanent but is sooner or later followed by ideas of persecution and great mental distress. The unfortunate patient who had enjoyed, a little time before, a vision of heavenly realities and "saw what it is not lawful for a man to utter," suddenly finds himself at the mercy of a wicked world, ruined in property and reputation, and the laughing-stock of his unfeeling associates who fail to appreciate his religious enthusiasm and care nothing for his aspirations. The stage of persecution thus inaugurated becomes a period of mental conflict, during which he is torn with doubt, overwhelmed with the taunts and threats of his friends and an object of persecution and derision. After a time the ideas and fancies which accompanied the receptive stage above described recur to his mind unbidden and offer a grateful contrast to the annoyances and persecutions of his daily life. Hallucinations of vision and hearing also help to confirm these pleasing impressions. He delights to dwell upon and derives consolation from them when alone, but the cup of happiness is repeatedly dashed from his lips by taunts and sneers of his vigilant persecutors. After days, months and sometimes years of alternate

agony and bliss, despair and blessedness, the apparent truth finally dawns upon him that he is persecuted because of some peculiar divine power, heavenly gift, or special religious calling. All is now revealed to him. His life of mental anguish and distress has been a preparation for his sacred ministry. He consults his Bible and finds references to himself in nearly every passage. He is the "Saviour," "Shiloh," "the Prince of Peace," etc., and is destined to receive honors and blessings far superior to any earthly king. Generally, even in women, a strong sexual irritation is connected with these extravagant religious delusions. He desires to marry to perpetuate a holy race or to become the father of a Pope or the founder of a Holy Priesthood, or if a woman, she fancies herself destined to give birth to a Saviour. The following illustrative case will serve as a type of many others:

"A. H., whose mother was insane and father eccentric and ill-balanced, at the age of 13 years displayed a precocious sexual sentiment and began to talk of matrimony. During the following ten years he offered himself in marriage to seven different persons, but for some reason was rejected by each one. At the age of 24 years he became unsettled in mind and devoted himself to erratic inventions and the study of the Bible. Believing that God had commissioned him to preach, he dressed himself in a fantastic suit of scarlet velvet and armed himself with a two-edged sword. Thus attired he preached and distributed tracts of his own composition, which were largely composed of scripture texts and his own incoherent comments upon them. He announced himself a prophet and 'the man on a white horse' spoken of in the Revelation, whose special mission was to convert and restore fallen women. With these extravagant delusions were mingled delusions of persecution. He believed himself defrauded of property and 'persecuted for righteousness sake.' He was finally arrested and lodged in jail because of frequent threats to kill a relative, and was brought from the jail to the asylum. He said that he had done no violence to any person and had been guilty of no unjustifiable threats. He acknowledged that he was eccentric, that he had worn a fantastic suit and carried a two-edged sword in order to attract attention, but that the latter paraphernalia were 'a powerful agency' and calculated to attract attention and 'do good.' He explained that he threatened his sister and her husband because they ill-treated his mother, and that he destroyed property and threw articles from the house because he desired to get possession of his own. He claimed to have broken no law, and

said that 'the joke had gone far enough.' He displayed many extravagant fancies. He knew more about the Bible than any other person, and through careful study was better qualified to teach the Scriptures than any divine. He spoke of the rottenness and hypocrisy of the church, and declared that several immoral women were church members at home. He declared that he had received much immoral solicitation and had witnessed lewd conduct on the part of several church members. When asked if his conduct was not calculated to cast doubts upon his sanity, he replied that martyrs in all ages had been persecuted for righteousness sake. He turned to the forty-ninth chapter of Genesis and read as follows: 'Judah, thou art he whom thy brethren shall praise; thy hand shalt be in the neck of thine enemies, thy father's children shall bow down before thee. Judah is a lion's whelp; from the prey my son thou art gone up; he stooped down, he couched as a lion, and as an old lion; who shall rouse him up? The sceptre shall not depart from Judah, nor a law giver from between his feet, until Shiloh come; and unto him shall the gathering of the people be.' He claimed to be 'Shiloh,' and to prove it quoted from the nineteenth chapter of the Revelation: 'And I saw heaven opened, and behold, a white horse, and he that sat upon him was called Faithful and True and in righteousness he doth judge and make war. His eyes were as a flame of fire, and on his head were many crowns, and he had a name written that no man knew but he himself, and he was clothed in a vesture dipped in blood, and his name is called the Word of God. And the armies which were in Heaven followed him upon white horses, clothed in fine linen, white and clean. And out of his mouth goeth a sharp sword, and with it he should smite the nations, and he shall rule them with a rod of iron: and he treadeth the wine-press of the fierceness and wrath of Almighty God. And he hath on his vesture and on his thigh a name written, King of kings and Lord of lords.' He further said that his coming here was prophesied, and read from the twentieth verse of the second chapter of the Revelation to the close of the chapter. The adulterous woman referred to above he was shown in a vision by an angel of the Lord one year ago. He had offered himself in marriage to seven lewd women in succession without knowing their character, and had been rejected by each of them on account of his religious belief, but afterwards received a vision from the Lord which showed to him their true character. He also read numerous quotations from the Old Testament Prophets, which announced his coming and imputed to him supernatural powers and a divine mission.

During his stay in the asylum he was at first much distressed by the lack of opportunity to carry out his divine mission, and made many complaints. With the lapse of time he became interested in useful employment and also displayed a talent for drafting and mechanical work. He developed a fatal facility for falling in love, and wrote many tender epistles to many different persons, of which the following will serve as a sample:

Jer. 31: 22. A woman shall compass a man.

DARLING MARY:

I cannot take, No, for an answer. I know you love me and that is enough. * * Says God, 'Woe to them that take away the right of poor of my people.' Isaiah 10. My grandfather was an English Lord in Ireland and left a great estate, of which I am the only heir, of the Rothschild lineage. But I have something better still, talent and genius, which never fail to secure for its possessor a position. There is a crown hanging over your pretty head and you may wear it soon if you can venture to strive for it a little. 'Are not my princes altogether kings?' Isaiah 10: 8. Oh my lovely Angel Mary please promise me now and do not delay any longer, for I cannot rest day nor night for the excess of my passion of love, (your pretty hand.) Why not enter into that greatest of all earthly pleasures, matrimony? I have long wished to be a man among men and have a family of my own, but there was always something stood in my way, as you see does now. There is a cause for this. My children are to be a sign of God's blessing to Israel (Isaiah 8: 18.) and this is the depths of Satan to destroy the sign, that is to destroy the tree and its fruit. (Jer. 11: 19-23.) A great many clubs in a tree is a pretty good sign it bears good fruit. Hence my persecution."

5. *The Religious Delusions of Epilepsy, Dementia and General Paresis.*

Contrary to the general opinion which has obtained, the delusions which accompany Epilepsy are not generally of a religious character. It is true that confirmed epileptics are much inclined to religious observances, attendance upon church services, and Bible reading, but these acts are generally the result of a previous religious education and are continued from force of habit after the development of mental disease. There is never or rarely any sense of religious fear or feeling of unworthiness, but rather a sense of satisfaction in the performance of religious duties. The epileptic frequently in conversation praises his own devotion to religion, or commends himself for having read the Bible most diligently, but there is beyond this no deep-seated religious feeling. His religious talk is automatic and the result of previous training. The same is true of the religious characteristics of confirmed dementia. Sometimes there is a semblance of religious extravagance on the part of

a demented man, but generally it may be traced to a previous religious education. Occasionally also in the dementia which follows religious melancholia there is an abiding habitual sense of religious unworthiness and spiritual deadness. In general paresis, on the other hand, there may be extravagant delusions of religious importance which closely resemble those which are developed in acute or chronic mania, and are due to the rapid flow of ideas through the brain and are a part of the general cerebral excitement. They are usually evanescent and rarely become systematized or controlling after the excitement passes away. None of these forms seem to require any illustrative cases.

6. *The Religious Delusions of Melancholia and Climacteric Insanity.*

In considering the religious delusions of those who suffer from melancholia it should not be forgotten that the entire mental training of many persons is in a religious direction. Their minds are disciplined to reflect upon religious doctrines, and their acquired knowledge is largely about their relations to God and His dealings with them. Outside of these abstruse topics they have little abstract thought, study or even reading. Their mode of thinking and bent of mind become eminently religious, and they are largely occupied with doctrinal discussions and theoretical speculations as to sin, repentance, future punishment and future reward. Oftentimes their views of God's relations to them are crude and faulty, too often derived from a literal interpretation of Old Testament passages, or the study of the lives of biblical worthies, or the legends of middle-century saints. These erroneous views frequently originate painful delusions and suggest intellectual difficulties which would not have been developed had their original conceptions of religious duty been less faulty. Depressing religious delusions such as characterize melancholia develop more frequently among protestants than catholics. Among the former, too, delusions of distrust and unworthiness are more apt to be elaborated by processes of thought, and hence give rise to greater and more persistent mental distress than among the latter. The delusions of protestants usually relate to their exposure to divine wrath in consequence of a failure to perform some ethical duty. The delusions of catholics generally relate to the non-performance of a devotional act or penance or ceremony prescribed by the church. Among protestants religious delusions are generally based upon conceptions of God as a stern, unyielding ruler who

commands instant obedience in thought, word and act. Hence motives are inquired into and conscience is put upon the rack to discern short-comings in intention, failures in refraining from thoughts of evil, and other equally hidden misdeeds. The mind of such a protestant is, in consequence, constantly under a severe strain, and conscience holds it remorselessly up to an ideal standard of ethical duty, with little assistance from outside sources. Among catholics, on the other hand, absolution, confession and penance give support to the mind by showing that wrong-doing is not unpardonable and sin may be expiated. The melancholic religious delusions of protestants therefore are those of despair, and are frequently accompanied by intense mental distress and strong suicidal proclivities. Among catholics, melancholic delusions are more apt to take the form of fastings, penance, the adoration of relics, etc., and are less hopeless. Among the religiously educated or piously inclined, delusions of distrust and fear generally develop in consequence of causes of exhaustion, such as ill-health, defects of digestion, over-work, over-worry, grief, want, pregnancy, lactation and the climacteric. The last-named period of female life seems especially liable to awaken religious melancholic delusions. This epoch marks a period of life when certain organic forces and activities cease. There is a lowering of the vital tone and an interference with the spontaneity of vital processes. The mal-nutrition of the brain finds its expression in religious doubts, fears, mental distress and suicidal propensities. At this age depressing religious delusions are persistent, and give rise to intense and lasting mental distress. The sufferings of the religious melancholiac far exceed in intensity those of any other form of insanity. The paranoiac suffers, it is true, but he is comforted by the thought that he is wrongfully accused, and has a consciousness that he deserves benediction rather than reproach. The victim of melancholia, on the other hand, is doubly distressed by the feeling that he deserves it all and much more. The religious fear extends to motives, duties, privileges, present happiness, future misery—"every thought and intent of the heart" seem to unite to destroy the mental peace of the individual. The restlessness and religious despair which accompany atheromatous degeneration among the aged are similar in character and mode of development. Examples of religious melancholia are unfortunately so common as not to require any special illustrative cases.

7. *The Religious Delusions of Chronic Mania, Alcoholic or other Toxic Insanity.*

The religious delusions of chronic mania, alcoholic or toxic insanity are generally of an extravagant character, and relate to the possession of great power, personal importance and attributes which, if not divine, are certainly super-human. In the majority of cases the delusions seem but the crystallization of the feeling of extravagance which accompanied the period of maniacal excitement of alcoholic or opium intoxication. There is, however, this striking peculiarity in these delusions. They are not invariably developed in persons of a religious training or of a devotional habit of mind. In many instances these persons have been the reverse of religious, and have no conception of a devout attitude of mind. The melancholiac, like the publican of old, "standing afar off," turns his attention to religious duties, and humbly acknowledges his ill-desert. The chronic maniac or alcoholic case perceives no impropriety in arrogating to himself religious pretensions. In certain rare instances, when hallucinations of hearing are present, the delusion becomes a depressive one. Numerous illustrative examples may be given. A male patient thought he was Jesus Christ, and it was his duty to hold up his right hand. If it fell, he feared the whole world would be destroyed. He afterwards fell into a trance and thought he was the "Crucified Christ." He also called himself the "Lion of the tribe of Judah," "Heaven's New-born King," "God with us," etc. Another, thought he must expiate his sins and put himself in the attitude of Christ on the Cross. Another, thought he heard the voice of God distinctly command him to leave the asylum, to cross the ocean to India, to seek a mountain of gold which no one else had been able to discover. He had been commissioned by God to make its location known to the world. Later, he stood constantly in an attitude of prayer, because God had commanded him to give himself up for the sins of the world "to stop its wickedness." He asked to be shot through the temple, and declared it a sin against God to allow him to live. He had a tubercular disease of the testicle.

The Connection Between Vicious Indulgences and Religious Delusions.

The connection between sexual impulses and the development of religious delusions is not from any necessary association of ideas, but rather from the close association and inherent unity of

emotional states. Whenever the emotions are stirred by any event, joy and sorrow, love and hate, hope and fear, pleasure and pain, are found closely related. In the sphere of the emotions one emotion may be quickly followed by an associated or contrasted emotion, without any adequate cause or logical reason. This part of man's mind is like Pandora's box. If one emotion is set free, all the others escape. In certain states of nervous instability the human mind becomes the theatre of shifting, constantly changing and conflicting emotions which dominate the reason and coerce the conduct. They may be excited by sights, sounds, odors even, and muscular movements, events, abstract ideas, reminiscences, and in short by everything which is external to man, and in turn they also may give rise to trains of thought, mental conceptions, other emotions and voluntary or automatic acts. Emotional states predominate in the sexual and religious life of every individual. Religious and sexual sentiments have this in common. They are individual and personal, arising from organic causes which are mysterious and never to be fully understood, and leading to actions which are equally incomprehensible. Under the control of sexual impulses and religious emotions a man is revealed as he is in his inmost soul, without disguises or false appearances. Sexual impulses and religious sentiments have their origin and highest development alike in emotional states, even in a healthy mind. In states of disease arising from sexual abuse or sexual excess, a morbid religious feeling develops among the religiously educated as a part of a general nervous erethism. In these cases the religious delusions are the expression of a general state of emotional instability which had its origin in sexual emotions. No better evidence can be given of the truth of this statement than the combined sexual and religious sentiments of monks and nuns in the middle ages. Exhausted by penance and fasting, emotionally excited by constant dwelling upon religious topics and a life of asceticism and active devotion, it is little wonder that their adoration for the Virgin Mary or the Saviour was expressed in the language of earthly love. The same is also true of the earlier stages of insanity from alcoholic, opium or other narcotic indulgence. The quickening of the cerebral circulation and the hyper-nutrition of brain tissue give rise to delusions of religious extravagance. Later, however, when the nutrition of the body has become impaired by vicious indulgences and nerve and brain cells suffer from mal-nutrition, delusions of religious fear replace them.

The Course and Termination of Religious Delusions.

The religious delusions of over-stimulated children are generally relieved by rest, freedom from study and a judicious correction of the educational errors which produced them. In many instances, however, the tendency to a degree of dementia is not fully arrested, and the child grows up to manhood or womanhood with a prematurely weakened brain and a liability to subsequent attacks of insanity. The same is true in a great measure of the religious delusions which accompany the insanity of pubescence. They are not systematized, and soon pass away. The insanity of pubescence, however, is liable to become periodic or recurrent mania, with a vicious circle of depression and excitement, and it is interesting to note that the religious delusions are generally lost sight of when mental disease becomes fully and unmistakably established. The religious delusions which accompany the insanity of masturbation are not necessarily incurable. They are however liable to become persistent and are not readily amenable to treatment. They may be considered incurable whenever the patient has reached the stage of religious extravagance, which is surely indicative of mental deterioration. The religious delusions of paranoia are essentially incurable, being the legitimate development of a mental twist and the outgrowth of an abnormal personality. They eventually become thoroughly assimilated by the mind and an integral part of its constitution. During the stage of persecution they may at times pass from the mind, but after the stage of transformation they cannot. The religious delusions of epilepsy, general paresis, chronic mania, alcoholic and toxic insanity require little special mention. They are the *débris* of decay and the broken fragments of a hopeless mental wreck. The religious delusions of melancholia are more curable. They mark deep-seated disease, but the prognosis is not hopeless.

RESEARCHES ON THE ETIOLOGY OF GENERAL PARALYSIS IN MEN.*

BY DR. JULES CHRISTIAN,
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In the article on *General Paralysis*, written by my colleague Ritti and myself, for the *Dictionnaire Encyclopédique des sciences médicales*, we felt warranted in using these words: "The etiology of general paralysis, notwithstanding all that has been written on the subject, is still the most obscure chapter of its history." This assertion has passed uncontradicted.

I resume the question to-day, believing that I should not leave unemployed the numerous materials presented to me during my service, first at Maréville, and afterwards, from 1879 in Charenton. My researches embrace, first, 84 cases observed at Maréville, from 1876 to 1879; second, 256 cases treated in the maison nationale de Charenton, from 1st January, 1879, to 15th March, 1887; making in all 340, personally known and treated by me. Having never been placed as chief in the service of the female divisions, I have deemed it proper to pass unnoticed all that relates to general paralysis in women, and to restrict myself to the relation of what I have myself seen and noted. That which renders this study peculiarly complex, is the fact that in general paralysis, as in every other mental disease, we are presented, not with one sole cause, but with an assemblage of causes, among which it is hard to discern the really efficient one. This explains, to some extent, the fact of the diversity and the exclusiveness of the opinions which have obtained and have been stoutly defended, all of which have had a certain measure of truth in them.

The first question presented is this; as general paralysis was not known and described before the year 1822, are we to conclude that it did not exist before that time? We can understand the great importance of the problem; if it has in part been demonstrated that general paralysis appeared first at the beginning of the present century, it would be a legitimate conclusion that it has been due to causes which had not previously existed, and we should then have occasion to enquire how and why these causes arose; we might then have some chance of finding a neat and precise etiology of the malady.

* From the "*Archives de Neurologie*," September, 1887.

But all to the contrary; the causes which we find assigned are just those which have acted through all time; it is then extremely probable that general paralysis itself has always existed. This is my decided conviction. It has happened to general paralysis as to some other diseases, which have through all time afflicted the human species (for example, typhoid fever), the essential morbid character of which has been distinguished only in a recent epoch. Yet, as to general paralysis, some of the symptoms have been seen and related (e. g. by Haslam), and perhaps if we were to unfold the writings left to us by the ancients, on what they called *phrenitis*, *cerebral transport*, *acute meningitis*, &c. &c., we might there find, not indeed a complete description of the malady, but at least that of the maniacal access which characterizes its onset. But then, when the physician met with such a case, what happened? The patient was put on starvation diet, he was bled white, and in a few days he vanished: General paralysis could not acquire its legitimate place until the day when the insane, brought together and properly treated in special hospitals, were regarded as sick persons, like other afflicted ones.

Frequency.—Another question, of more immediate and practical interest, is whether the disease, since it has been recognized, has become more frequent. Calmeil so believed. After having ascertained that general paralysis at first gave one-tenth of the figures for men received in asylums for the insane, he found, in the end, that the proportion was one in four and even one in three.

The number of general paralytics admitted at Charenton was nearly the same in 1876 as in 1879, and the proportion to the total admissions varied but little. In fact, of 122 men admitted in 1879, 37 were paralytics; and in 1876 the proportion was 35 in 119. There were, in the interval, some fluctuations, but within very narrow limits. Should we judge from figures only, it would seem that we are not authorized to admit that the malady has been increasing, for the localities from which Charenton draws its population did not change in the intervals. *Planès* arrived at the same result in his "*Recherches sur le mouvement de l'aliénation mentale à Paris*, (1872–1885). His figure for 1885, (172) was almost the same as that for 1873, (174). To these figures it may be objected that they cover a period of only a dozen years. In a longer time, the results might perhaps be different. I should not be astonished at this, for I incline to the belief that general paralysis is really becoming more frequent. I shall give my reasons for this belief farther on.

Age.—Bayle said *general paralysis*, (or as he called it, *chronique meningitis*), “does not occur in the most strong period of life, that in which man, being led away by the violence of his passions, gives himself over to all sorts of excess; on the contrary it always appears in the period in which he enjoys the plenitude of his faculties and functions; in which, impelled by the desire of establishing his family, and of acquiring fortune, honors and positions, he is essentially dominated by ambition, and consequently exposed to all those vexations which follow hopes that are so often disappointed, and misfortunes of every sort.”

This opinion of Bayle has since been confirmed by all observers; it is now established that general paralysis is a disease of mature age; it occurs between thirty and fifty. All statistics are in accord on this point; those cases of precocious general paralysis (before the twenty-fifth year of age), or those after sixty, should be held as absolutely exceptional, and ought not to be admitted before severe criticism. My 340 cases give, as to ages, the following results:

	Charenton.	Maréville.	Total.
25 to 30 years,.....	4	2	6
30 to 40 years,.....	97	19	116
40 to 50 years,.....	127	45	172
50 to 60 years,.....	28	18	46
	<hr/> 256	<hr/> 84	<hr/> 340

As the age was taken on admission, it is evident that many of the patients classed in the period between fifty and sixty years ought in reality to stand between forty and fifty; and it is also true that some of those ranked between thirty and forty, should be placed between twenty-five and thirty. At all events, however, we see that 288 patients out of 340 were between thirty and fifty, or nearly 85 per cent; this point appears to be settled.

Civil State.—Of my 340 general paralytics 212 were married; 107 were single; 17 were widowers; 4 were unknown. The disease therefore struck preferentially the married men, which is contrary to the generally received opinion (?) as to the bad influence of celibacy. Again, among my celibates there were many who should figure among the married, as they had for many years lived maritally with the same companions. Some being military men, had not been legally married, because they did not possess the regulation dower; they waited for the time of retiring, intending then to effect legal union. Some others had been harassed by difficulties of another order, family prejudices, formal opposition

of elders, &c. &c. Their lives had been similar to those of persons regularly married.

I do not exaggerate when I say that at least one-half of the 107 celibates were in this position. The proportion of the married ought therefore to be larger than it appears, and we would be obliged to admit that general paralysis strikes preferentially married men. To say the truth, this result is not to be wondered at, for if celibates in general lead a less regular life than married men—which however remains to be proved—the latter, on the other hand, find that marriage brings to them a multitude of cares, preoccupations and disquietudes, which, if all be taken into account, more than balance the problematic inconveniences of celibacy.

[NOTE BY TRANSLATOR.—We half suspect that Dr. Christian is an old bachelor, and we hope he is not a repenting married man. But before settling this question of proportional liability to general paralysis, should we not first ascertain the proportion between married and single men living at the ages of incidence of the disease. If this proportion is in France similar to that obtaining in America, married general paralytics should preponderate, if the figures be abstractly considered, instead of relatively. It is however our belief that the civil state of the victims has very little to do with the determination of the malady, but if forced to take sides, we certainly would not vote with the advocates of celibacy.]

Professions.—There is no profession, from the humblest to the most elevated, in which examples of general paralysis are not met with. At Maréville I found, in eighty-four patients, twenty-four workmen and day-laborers, the most of whom were illiterate, (masons, butchers, saddlers, potters, sawyers, tailors, barbers, &c., &c.,) and three domestics; in other words, nearly one-half of all the cases were those of persons without any culture, or with very little.

It is known that at Charenton similar results cannot be furnished. Maréville is a departmental asylum receiving the insane poor of several departments; but Charenton is open only to paying patients, who belong mostly to the easy classes. In my two returns there is one fact which calls for attention: it is, that the agricultural population figures in only a very low proportion.

On the other hand I have noted a considerable number of merchants, commercial employés and accountants; of these there were sixty-eight, or about twenty-seven per cent of the whole. At Maréville I found only seven, or hardly eight per cent. In like manner also Charenton furnished a notable contingent of the liberal professions, (physicians, lawyers, professors, artists

engineers, officials,) whilst this category of patients was hardly at all represented at Maréville.

(The author here furnishes a table showing the numbers of the various occupations of the patients in each of the asylums mentioned, which is too extensive for reproduction here; we therefore merely extract a few of the most important items:)

	Charenton.	Maréville.
Military officers.....	56	8
Military, other ranks,	18	8
Merchants.....	36	3
Commercial employés,	32	4
Druggists, chemists, dentists, &c.,.....	5	0
Notaries, teachers, registrars, &c.,.....	17	1
Undertakers, livery letters, &c.,	13	0
Masons, butchers, tailors, &c.,	20	16
Operatives, various,.....	2	21

The author makes the following remarks on the figures shown in his interesting table: "These figures are significant only in showing that, contrary to the generally received opinion, general paralysis is not exclusively a disease attacking the upper and educated classes. * * * * * From the highest to the lowest in the social scale it finds its victims, in all conditions; it spares none. Some, however, have been more specially incriminated, and notably the military profession."

Military Life.—Calmeil, in 1826, signalized the pernicious influence of army life, which he ascribed to the fatigues of war, to excesses and the moral commotions excited by combat. Bayle, at the same period, observed that military men frequently became general paralytics, but he blamed above all, the change from an active life to a sedentary one. In order to explain the opinion of Bayle and Calmeil, we must refer to the epoch in which they wrote. It was after the long wars of the Revolution and the Empire, and up to the year 1815, which had so thoroughly upset the life of a multitude of military men. To the fatigues and the wounds of four and twenty years of incessant war, there was now added the vexation of defeat, and for many that of being removed from army command, reduced to a precarious existence and obliged to find new resources for a living.

All of these causes cannot be assigned now; that to which Bayle assigned so important a role did not present, for our soldiers were affected, not at the time of retreat, but in the period of full activity. We also remark that, though general paralysis is frequent in the army, it is less so than our figures at Charenton

would make it appear; for Charenton receives the largest number of the military insane, and above all of officers, not only from one definite conscription, but from the whole army.

The soldiers of all ranks amount in my tables to the number 90: 74 at Charenton and 16 at Maréville. In this total the officers make the great majority, 69 in 90; it therefore appears that the malady falls chiefly on officers. But it is to be remembered that in our present organization, sub-officers and soldiers between thirty and forty years of age have become extremely rare; they were numerous formerly, and a large number of them are found in the cases of Bayle and Calmeil.

My own experience leads me to believe, outside of all precise statistics, that during the years which followed the events of 1870-71, the number of military men affected with general paralysis had become more considerable; the events of the war must certainly have played an important role, as, at the least, an exciting cause. There was, due proportion being allowed, some analogy to the situation in 1815.

Heredity.—There is a general tendency to the belief, since the works of Lunier and Doutrebente, that general paralysis is not hereditary in the same manner as insanity, properly so-called, that its heredity is one of congenital or cerebral tendencies. Ball and Regis have signalized themselves on this opinion; in the statistics of 100 families of general paralytics, containing 1,565 members, they found only five insane persons. I have arrived at different results. In the cases which I have been able to follow (about 200,) I found in fifteen the father or the mother insane; in six, the grandfather or the grandmother insane; eleven patients had a brother or a sister insane, and among these eleven there were two who had brothers affected with general paralysis; nine had an uncle or aunt insane. In one case I noted heredity *en retour*, a niece was insane; two had epileptic mothers; in three others, a brother or a sister was epileptic; lastly, I noted in fourteen congestive heredity (father, alcoholic, in five; mother, somnambulist, in two; father or mother hemiplegic, in six, &c.)

Though these figures are incomplete, and everybody knows how difficult to explore are the questions of heredity, yet they lead me to suppose that general paralysis does not essentially differ from other mental maladies, and that there is no room for imagining a special heredity for it.

Alcoholic Excesses.—I have seen a great number of general paralytics who had been of exemplary sobriety all their lives, and

on the other hand, I have known a great number of alcoholists, who, after ten, fifteen and more years, being attacked with delirium tremens, have not become paralytic—so that I remain very sceptical as to the actuality of this cause, which so many authors of high repute do not hesitate to regard as preponderant. Is it not, besides, a striking fact that amongst 340 of such patients, there were only eight dealers in wine, tavernkeepers, and only twelve of occupations which lead almost fatally to intemperance, viz., butlers, cab-drivers, horse dealers, &c.?

I continue convinced that alcoholism is but rarely the cause of general paralysis. It is true that almost all its subjects, when the maniacal access which renders asylum confinement necessary, is developed, go to excess in drinking; but this is at that time a purely incidental fact, symptomatic of the malady. It is also true, and Magnan has insisted on this point, that certain alcoholists end by presenting the symptoms of general paralysis; will not this be the *alcoholic pseudo-general paralysis*, the march of which notably differs from that of the classic general paralysis?

Veneral Excess.—What I have just been saying of alcoholic excesses, I would likewise say of *sexual excess*, which certain authors would make the principal etiological factor, if not indeed the sole one. But here also they have confounded the excesses committed by the patients in the onset of the malady, with those which should have been sufficient to provoke the malady. In listening to the confidential revelations of families, I have very often learned that those paralytics, who for some weeks past, had been a prey to genetic excitation, carried to a high degree, had for years previously really evinced a quite abnormal frigidity. In fine, if we look more closely, we find that the genetic excitation of the onset is almost always altogether mental; it is a romance which runs through the head, and which comes to light in writings, but only with difficulty becomes a romance in action. There is no satyriasis; and it is only exceptionally that masturbation is observed, or nocturnal seminal emissions; which shows that the excitation does not reach the genital organs. (But do they not try to carry it there?)

It will be objected to my manner of seeing things, that there are general paralytics who have, beyond doubt, gone to excess both in Bacchus and Venus; I do not deny it. I have myself known a good many such. But I believe that these excesses have acted only as an accessory cause, and that their role has been singularly exaggerated.

Abuse of Tobacco, and above all in smoking, could not fail to undergo accusation. But if tobacco has a real influence, how shall we explain the fact that the disease is almost unknown in the countries in which it is continually smoked, as Spain and Turkey, and that it has not spread more in other countries in which the consumption of tobacco reaches its extreme extent, as in Holland and Germany?

Syphilis.—Many general paralytics have, at some anterior time in their lives, had syphilis. From this point to the ascribing of general paralysis to syphilis was but a step, and it has been all the more easily bounded over, inasmuch as this hypothesis encouraged the hope of cure by appropriate treatment, at least in a certain number of cases. When syphilis attacks the brain it produces changes which may, up to a certain point, simulate general paralysis (*this is syphilitic pseudo-general paralysis*.)

I really cannot believe that general paralysis is ever of syphilitic nature. Syphilis is a cause of general enfeeblement; it brings along a cortège of vexations, inquietudes and all sorts of apprehensions; and under this aspect it cannot fail to exercise a hurtful influence. When it passes into a cerebral lesion it may be considered as acting traumatically, by profoundly disturbing the functioning of the brain; but the meningo-encephalitis of general paralysis is not an alteration of syphilitic nature. Syphilis of the brain brings about gummata, and is always localized in a point from which it advances step by step, still deeper below the surface, so that a gumma, which starts from the cranium, rapidly invades the meninges, and next the cerebral tissue; or, if it has originated in the brain itself, it is propagated to the envelopes, and then to the bones. Nothing like this is ever seen in general paralysis; the anatomical lesions of this disease have always, and in all cases, the same extent and the same seat. A cerebral gumma, however grave the results caused by it, may be cured by specific treatment; never, under any circumstances, nor under any treatment, however energetically and well conducted, have I seen general paralysis turned aside from its fatal march. And yet more: when, along with symptoms of general paralysis, there were present alterations of no doubtful nature, (as ulcerations, mucous plaques, and cutaneous eruptions,) I have always observed that though the specific treatment removed these really venereal troubles, yet had they no influence whatever on the principal malady. It is, therefore, my firm conviction, that if general paralysis does frequently fall upon quondam poxed subjects, it is

never itself of syphilitic nature; and I have not in the least changed the conclusions with which I closed my work in 1880, then read before the Medical Society of Paris.

Twenty-three of my patients had been previously affected with syphilis; not in one of these did the anti-syphilitic treatment produce the least improvement in the chief disease. Sometimes, indeed, I was forced to ask myself if it had not rather been harmful. Lastly, I have made autopsies on general paralytics, who formerly had syphilis; I found only the classic lesions of general paralysis.

Injuries to the Cranium.—I have seen thirty-three cases of this sort. In seven of these the injury had happened in infancy, and characteristic cicatrices and deformations remained. All the others had occurred in adult age, and in the most various forms, (as fall from a height, or from horseback, wound of the head from explosion of a shell, or from the cut of a sabre, &c., &c.) If the disturbing influence of injuries to the cranium is not doubtful, we may be permitted to ask, whether grave wounds of other organs should be regarded as indifferent. In a recent work, published in the *Archives de Physiologie*, No. 8, p. 392, M. Strauss relates some cases of tabes following a grave traumatism, (fracture of the tibia, fracture of the rotula, traumatic arthritis in the elbow). I have known similar instances in connection with general paralysis; in one patient there had been, two years previously, a fracture of the femur; in another, a fall from a carriage, causing fracture of the left leg, which did not heal before several months, and after amputation had been several times deemed indispensable; a third patient had been riddled with wounds at Gravelotte, (without any wound on the head), &c. I think with M. Strauss, that without exaggerating the importance of these cases, we should take account of them and note them.

Insolation.—This is the cause, almost always alleged, in the cases of those who have been in hot countries, principally military and naval men. With this influence, which appears not doubtful, we may, in a certain measure, compare that resulting from exposure to strong fires, (as with cooks, pastry makers, bakers and stokers); ten of my patients belonged to this category. The hurtful influence of these exposures was signalized by Calmeil. If the action of heat is not disputable, the same may be held as to *cold*. One of my paralytics, a comptroller of taxes, having lost himself in a snow storm, did not find his way until the morning. He reached home pierced with cold, and from this time he felt

violent pains in his limbs. Two years afterwards his pains ceased, and then he commenced to rave.

Previous Diseases.—The influence of previous diseases is one which must not be overlooked. In very many paralytics, there have been, in infancy or in puberty, or even in adult age, grave pathological incidents, such as meningitis, convulsions, typhoid fever, typhus, cholera, rebellious or pernicious intermittent fevers; it appears not doubtful to me, that these causes must have a predisposing influence towards general paralysis, even when it is not shown until long afterwards; whether it be from the fact of a state of general feebleness persisting, or that these maladies have left a permanent alteration, a *thorn*, in the cerebral organism. Some grave maladies have been related, in the antecedents of very many of my patients, and I am convinced that the figures which I have compiled fall far below the reality.

But we should also inquire whether the diseases I have above instanced, or others of like nature, can directly determine general paralysis. We see that after certain acute affections, such as small-pox, diphtheria or typhoid fever, paralytic symptoms are often produced in the lower limbs, and in the velum palati, &c. These generalized paralyses, which were first described by Gubler, have absolutely nothing in common with general paralysis (of the insane); they are of quite a different nature, and are susceptible of cure in the majority of cases. This is a well established distinction, but it does not seem to me impossible that general paralysis may supervene a short time after a grave febrile malady, and in such cases there may indeed be a relation of cause and effect. The following are examples:

A commercial traveler, aged forty-three, was admitted in April, 1884. This patient, who had always been sober and regular, lost his wife some years before, and was heavily grieved thereby. Fifteen months prior to his admission, he was in Russia, on business, when he suffered under a very grave malady, (typhoid fever?) which kept him in bed for several weeks. After this it was observed that he had frequent attacks of weakness, in which he became suddenly *pale* and *cold*, and his memory had failed so that he did not comprehend what was said to him. He died in the end of 1886, in epileptiform convulsions.

A second case was that of a Greek merchant, married, father of several children, age forty-eight, on admission in October, 1880. Up to the beginning of this year, he had conducted his business perfectly, he led a very regular life, and he had appeared to enjoy

excellent health. At this time he had a very grave febrile affection (?), against which he had to take large doses of quinine. He recovered with difficulty; his convalescence was interminable, and he was advised to visit France, to obtain restoration. On board the vessel the first symptoms of alienation were manifested, and very soon after arriving in France, he was placed in Charenton. He died in the course of 1882.

Some other affections which we frequently hear spoken of, in the antecedents of general paralytics, appear on the contrary to have only a slight influence; such as *epilepsy*. I have known only of two epileptics becoming general paralytics. One of these was aged thirty-three, a commercial employé. He had been married, but very soon lost his wife, which caused him deep grief. He was admitted in March, 1881; he died in August, 1884. It was a very remarkable fact that he never had an epileptiform attack during his three years in the asylum. The second was forty-two years old on his admission, in January, 1887; he had *syncopes* from his infancy, on the least annoyance; he became pale, lost consciousness, fell down, and on coming to himself he complained of severe pains in his head. He, however, conducted an important business, and was married and had three children. His mother presented exactly the same symptoms, and they were observed in two of her children. The first signs of mental enfeeblement in this case, dated about one year back, and they were attributed to business annoyances. He remained only two months in Charenton, during which he had no *syncopes*. Though the influence of epilepsy is so trivial, it is quite otherwise with *progressive locomotor ataxia*. Since the works of Baillarger, who first pointed out the coincidence, a very great number of observations have been published, and an explanation of this complication, which appears quite natural, has been sought after.

Ataxy having connection with sclerosis of the spinal medulla, and general paralysis being accompanied by sclerosis (?) of the brain, it is said that in certain cases the lesion of the medulla may be propagated from below upwards. I have before opposed this theory, because it does not in any way appear justified. Besides, when clinically examined, general paralysis very rarely supervenes on locomotor ataxia. I had only three cases among three hundred and forty. On the other hand, I have seen a great many ataxics become insane, and at present I have some such in my halls; but they are not paralytics.

Erysipelas of the Face was signalized by our master, Baillarger.

I have had but one case in which this cause was assigned. It was that of a lieutenant of dragoons, aged forty-one years, not very intelligent and almost illiterate; he had become an officer by grace of the events of 1870, and I could judge of the efforts which this unhappy man must have imposed on himself, in order to meet the requirements of his grade. In 1878 he underwent an operation for a tumor on his forehead (lupus?); erysipelas of the face ensued. He had hardly recovered when he was obliged to start for the grand manœuvres, on return from which he commenced to rave. He entered in April, 1879, and died in two years afterwards. I shall add to this the following case:

A gendarme, aged thirty-two, received a kick from his horse, on his head, which produced a great contusion on his face. An abscess was consecutively developed (without doubt in the maxillary sinus), and it lasted more than a year; at last it was healed, but he was then found to have lost his memory, and he began to drink; he was sent to Val-de-Grace, and was next transferred to Charenton, where he arrived under perfectly characteristic maniacal agitation; he was taken out by his family after a month's sojourn. Had the maxillary abscess any causal relation with the general paralysis? This is a question I often ask myself. *En résumé*, the question as to the relations of general paralysis to acute or chronic anterior affections, is still very obscure; in every respect it merits attention.

Moral Causes.—A very great number of patients have had to bear strong vexations; as, loss of fortune, disappointed ambition, and all sorts of deceptions. These are, indeed, the causes most generally alleged by the families; the action is slow and progressive. But sometimes the moral cause acts in the manner of a traumatism, it produces a violent shock, which the patient never surmounts. I saw, in 1870, dying in Maréville, a merchant who was a municipal officer of his village; he had been arrested by the Prussians, and was on the point of being shot. I also saw a physician who had run the same risk during the Commune, and escaped only by miracle; and again, a merchant who had seen his store invaded, pillaged and burned, and himself threatened with death, &c.

In the preceding review, I have tried to exhibit, as completely as possible, the causes which I have been able to identify, with appearance of reason, in my cases. It is evident that in such a matter, one can never flatter himself that he has arrived at absolute exactitude, and not very much will be learned of the veritable genesis of the malady, if he limits himself to this enumeration.

To say that in so many maladies we find such a cause—and in so many others such another cause—in order to reach a definite conclusion by a simple comparison of figures, seems not to me to be the means of eliciting merely a plausible etiological conception; and all the more, as in reality we never see any of the causes acting isolately; they mix, interlock and combine in a thousand ways. One may judge of this from the following examples:

1st. A butcher, aged fifty-six, though not a drunkard, yet was not a sober man; for a dozen of years he had tinnitus aurium, when in 1870, in a quarrel with some German soldiers, he was violently struck on the head with the butt of a musket. In 1873 he lost his eldest daughter, of eighteen years; from this time mental derangement was accentuated. He died in marasmus in January, 1887.

The following case is yet more complex:

2d. V., a captain of artillery, aged forty-three years; the only son of a small farmer. He attained, by great efforts and privations, entrance into the polytechnic school, and went from it into the artillery. Some years afterwards, he attached himself to a widow, the mother of one child, and he lived maritally with her. During many years he had to undergo all sorts of privations to support his household, the existence of which he had to conceal from his relatives. The woman became insane, and had to be placed in a lunatic asylum, but she had made extravagant expenditures, which plunged the unfortunate officer into absolutely inextricable embarrassments. One day when he went to visit the patient, she, at the moment he was leaving, threw herself from a window of the second story, and fell, severely wounded, at his feet. She died some days afterward. From this time V. gave clear signs of general paralysis; he died in epileptiform convulsions in about two months after.

We here see cerebral overdriving, heavy cares, vexations, difficulties of life, all combined to act on the brain of V., the last blow fell upon him as a terrible shock.

To these two cases, taken from among those best known by me, I shall add some others:

3d. F., a sculptor, aged twenty-eight, grandson of one of the great painters of the last century. There was a double hereditary predisposition; his maternal grandfather and a paternal uncle died insane. In youth he led a dissipated life, had syphilis and underwent energetic specific treatment. At a later time he married his mistress, and found himself greatly embarrassed. He met with artistic disappointments; some of his works had been favorably

received; he raved over a projected *chef de ses œuvres*, which must raise him to unapproachable eminence, and bring to him both glory and fortune. He came to close his days at Charenton.

4th. M., captain of infantry, forty-five years old. A brother and a sister idiots. Several idiots and insane in his family. Twelve years ago he received sabre wounds on his head. He married and found himself in very straitened circumstances, with a wife who was almost constantly sick.

5th. D., a commercial employé, aged forty-five, had a terrible fright during the Commune, and a narrow escape from execution. Some years after, violent grief from the death of his wife.

D., aged thirty-eight, captain of infantry. Hereditary predisposition; father or mother insane. In 1870, during the war, he had a violent fright; the train on which he was going with his company was derailed; he escaped death, but he saw several of his men perish under his own eyes. In 1873 he fell from his horse. In 1878 he had sunstroke in Algiers; from this time his intellect was disturbed; he died in 1879.

I shall close these details with the following case: F., had a drunken father and an insane uncle; but at the age of fifteen he presented nothing particular; he was then very intelligent and one of the first of his class. At this age he had typhoid fever, after which the hair of his head and eyebrows fell off, and he forgot all he had learned; he had to begin over again all his studies, and it was seen that he was incapable of sustained attention; he became capricious and eccentric. In 1870, at the time of the war, he went forth as a common soldier, but he was very soon sent home with a certificate of mental alienation. He became a café singer, and had a fine run; but his career was only a series of extravagances and squanderings with mistresses who cleaned him out. One day, in a dispute with one of these, she threw a decanter at his forehead, inflicting a deep (?) wound, the cicatrice of which was still visible; divergent strabismus of the eye on that side resulted. In 1882 he showed the first signs of general paralysis; he died three years after.

These examples, which I could multiply, show that in the etiology of general paralysis we must always expect to meet with multiple causes, but these causes present nothing specific, as I have already stated.

The facts are not, in the main, so dissimilar as they may at first sight appear, and to me it appears possible to draw from them general data for the formation of some sort of a synthesis of this etiology, so diverse in appearance.

The authors who have been engaged in this question have generally yielded to the tendency of invoking a unique cause. According to some of them, the sole culprit is alcohol, and their chief argument is that general paralysis augments in frequency *pari passu* with the progress of alcohol. Others accuse exclusively sexual excesses, and again others syphilis.

I believe that the problem is not so simple, and I have tried to show that the whole of the causes are far from having the influence that has been attributed to them. However, granting the identity of the lesions and symptoms which are met with in all general paralytics, we may be permitted to ask, whether there is not in all the cases, and at the origin of the disease, an etiological influence which is always the same.

First of all, we should enquire whether there exists a predisposition to general paralysis. Now, in this respect, one first point appears to me to call for note; when we study general paralytics from the point of view of their cerebral state, anterior to the malady, we discover (which has at least been the result of my experience) that they almost all have had but a medium intellectual capacity, not surpassing, even falling below, the average. Even in those who may be signalized for their brilliant faculties, there are singular accompanying lacunæ; there is not one who becomes remarkable for superior and well-balanced intellect. This intellectual feebleness which, it goes without saying, is wholly relative, has not always the same origin. With some it is congenital; these are the *héréditaires*, the *dégénérés* who, on coming into the world, had the psychical deficiency whose penalty is to fall upon them afterwards; in these we may observe the physical stigmata so characteristic of many; asymmetry of the cranium or of the face, irregular implantation of the ears, &c.

In others, on the contrary, the misfortune has come accidentally, in infancy, at the period of puberty, or even later from such causes as convulsions, typhoid fever, injuries to the head, sun-stroke, fright, violent emotion, &c. All these individuals, with brains thus lamed, are exposed to all those vexations, mortifications, and deceptions of existence, which are but the current coin of human life, but no one, be his career ever so fortunate, can boast of having escaped them; and no person reaches middle age without having to deplore the loss of some who were particularly dear to him, or without having lost money, or meeting with some deception, or with contrarieties of every sort. But only those succumb, in whom the required resisting power is wanting, and it

is in this category that I rank the predisposed to general paralysis. For these, the least side-step is an excess; they bear drink or venereal indulgences badly, and without being either alcoholists or debauchees, they readily overpass the limits of safety. Finally, whatever may be their social position, if they are subjected to continuous intellectual effort, and forced to renew it every day, be it ever so trivial, yet will it be too much for them; it will *overdrive* them, and general paralysis will be the final result.

But let us not here be deceived; *overdriving* does not necessarily imply an extraordinary or violent effort; there is an *overdriving* every time that the effort demanded is disproportioned to the ability of the organ. There is also a third class of patients; those who present no blemish, either congenital or acquired, consequently no predisposition; these succumbed because they had demanded of the brain more than it was able to give. These examples are not rare; we all have met with them.

In summary of the preceding observations, I think the etiology of general paralysis may be reduced to the following terms:

1st, *Predisposing causes*: Relative weakness of the brain congenital or acquired, (at least in the majority of cases.)
2d, *Exciting causes*: Every thing capable of determining prolonged fatigue of the organ, (vexations, watchings, excess of mental or bodily work, &c.) These causes may be summarised in one word, *overdriving*.

So that should I condense all that precedes into one general formula, I would say that "the cause of general paralysis is *overdriving of the brain* in adult age."

If these views be correct, it might be possible to push the analysis farther, and to succeed by induction in determining the original lesion of the malady. If we examine closely all the causes I have enumerated, those of which the action is sudden and violent (as fright, strong emotions), as well as those which may act only slowly and insidiously, (as vexations, preoccupations, mental conflict), it is not doubtful that these all result in sudden or in slow modifications of the cerebral circulations, I might say the like of the physical causes (as wounds, sun-stroke excesses, sleeplessness, &c). At the outset the circulatory trouble is purely functional and transient; but it is not long till it becomes organic and permanent, and it borders on vascular lesions, which according to many authors are the point of departure of the alterations which we realize in the tissues itself of the encephalon. It is seen that I arrive clinically at the conclusions at which some observers have

stopped, such as Meyer, Lubinoff, Rindfleisch, Magnan, &c., who do not hesitate to place the origin of general paralysis in the cerebral vessels.

One last word now to explain what I said in the commencement on the subject of the increased frequency of general paralysis since it became known. This increase appears to me to be real, for though the causes I have examined are not new, and have always existed as they now do, yet we must recognize the fact, that they now operate on altogether different conditions; our social state differs profoundly from that which obtained a century ago (to take this term for the comparison.)

But a hundred years ago every one born found his course of life, in some sort, all traced for him: things were so arranged that in the career in which one chanced to be born, competition was at a minimum. Without any great efforts, and without competition, every one almost with certainty reached his goal; he generally lived and died, not only in the same city or village, but in the very house in which he was born, and he had but to walk peacefully in the track beaten by his father. To-day all is different; the conditions of life have been profoundly changed. Every one has before his eyes a horizon that has no limits, and it may be said that it depends solely on himself whether he shall reach the position wished for by him; every ambition is permitted to him, and is legitimate. The result is that the number of competitors has every where augmented; the struggle for life becomes every day more bitter, and those who enter into the conflict without being sufficiently armed, are almost sure to fall. One who, in a given condition, might once have passed through an honorable and peaceable career, is to-day obliged, in order to reach the same result, to use an accumulation of efforts under which he soon breaks down.

Thus is it that the number of the *overdriven* fatally augments, and it appears to me that the number of general paralytics should also augment, and if my views are correct, nothing can authorize the idea that this augmentation should actually be arrested. But it is not civilization that is to be blamed; for civilization, that vague and much abused word, contains more good than evil, and ameliorates the conditions of existence. The sole culprit is *over-driving*, which fatally strikes down those who are not strong enough to overpass "the struggle for life."

CLINICAL CASES.

A CASE OF PROLONGED MENTAL STUPOR—THE REMOTE EFFECT OF A BLOW ON THE HEAD.*

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Superintendent of the Butler Hospital, Providence, R. I.

The patient, whose case I am to relate, was a retired merchant, aged 57. He was one of a family of eleven brothers and sisters. There was no history of nervous disease in the family, except in the case of one of his sisters who was said to be neurasthenic. He possessed unusual business capacity and excellent mental balance, was very actively employed, and had much responsibility and anxiety by reason of his connection with a variety of public and private enterprises. He was considered a "nervous man" by his intimates, because of his great motor activity and restlessness, and because he had been troubled with insomnia for years. Also for several years he had suffered from not very severe dyspepsia, which was undoubtedly caused by carelessness and irregularity in eating. During February and March he had a succession of large boils and a moderately severe attack of sciatica which left him much debilitated, but from April first he gained rapidly, and enjoyed better health than usual.

On June 22, he was thrown from a tricycle while coming down a hill and struck with great force on his shoulders and head—the blow on the head coming upon the left frontal protuberance. He was momentarily insensible, but soon rallied sufficiently to walk with assistance to his home, which was a few rods distant. Aside from local soreness, dizziness and nausea—never sufficient to produce emesis—were the only symptoms during the night—the fall having occurred about seven p. m.; and a surgeon could detect no evidence of fracture of the skull. On the following day he was able to go about his business, though not well and particularly feeling, as he expressed it to his wife, as though "Some heavy substance were loose in his brain." This sensation continued in a somewhat modified form for about six weeks, and was always referred to the left frontal region. He was several times heard to say that he "felt as though a bullet was rattling around in his brain." After about six weeks, or early in August,

* Read before the Rhode Island Medical Society, December 8, 1887.

this symptom largely disappeared, but he began to notice an unsteadiness in walking, which seemed due to impairment of the power of coördination in the left leg, *i. e.* the leg on the same side of the blow on the head. The other extremities were not affected and he was able to be very actively employed in business during all this time, the symptoms mentioned causing him little annoyance and no anxiety.

On August 10, while on a yacht under a moderately hot sun, and with the sea not rough enough to have caused him discomfort ordinarily, he became very sea-sick. On the following day severe headache began, chiefly in the left frontal region, but not confined to that locality. This continued for two weeks, and finally he became unable to bear ordinary noises or annoyances with composure, and was obliged to cease work. After a few days of complete rest and treatment (probably by bromide) he was somewhat relieved and resumed work, but in another week, September 8, the pain recurred with increased severity, was continuous day and night, and more strictly confined to the region of the blow. I first saw him five days later, September 13, almost three months after the injury. His physician considered the headache of dyspeptic origin, and was treating him accordingly. He never seemed to have thought of any connection between the injury and the condition thus existing. I found him exhausted by long continued pain and sleeplessness, even slight noises and annoyances irritated him greatly, but otherwise his mental faculties were not in the least affected, and he had attended to his ordinary business up to this time, (when not incapacitated by the severity of his headache.) Physical examination disclosed little abnormal. There was no photophobia. The pupils were rather small, but not markedly so, equal, and reacted to light, muscular power, cutaneous sensation, and the skin and tendon reflexes were normal. Pulse 65 and good, (his pulse in health was about 60.) I had him removed to the house of a friend, as the necessary quiet could not be secured at his own, and directed absolute quiet and rest in a darkened room. For two days the headache continued very severe, except when controlled by large doses of anodyne. His mind was clear until the second day, when his conversation wandered incoherently, though no active excitement was present. Gradually this changed to a condition of mental stupor. He paid no attention to noise and lights, to which he had before been very sensitive, gave no evidence of pain, and showed little or no recognition of those about him, but there was great motor activity. He

continually writhed and twisted into every possible position except the supine. The most favored one was that in which he rested on his face and knees—the knees being flexed close upon the abdomen. With his hands he was constantly grasping and pulling his own flesh, his bedding or whatever was within reach. He would grasp the hand of any one near him, and forcibly squeeze and knead it with little apparent consciousness of the act.

He took liquid food placed in his mouth, and slept by short snatches without much medicine. He passed urine and feces in bed, and had no regard for decency. After four days this restlessness decreased and was replaced by increasing stupor and somnolency. He lay upon his back, rarely moving. Showed no evidence of discomfort, and slept about half the time. Would usually swallow liquids placed in his mouth, though sometimes with difficulty. Sometimes it was necessary to draw his urine with a catheter, but generally it was passed naturally, and two compound cathartic pills would evacuate the bowels. His temperature had been regularly taken from the beginning of the attack, and never shown a variation of more than half a degree from the normal pulse, between 60 and 70, and good. His color and general appearance were not bad, but he still gave the impression of a man suffering from a profound nervous shock, and critically ill. Several physicians saw him who agreed in this, but no one made a confident diagnosis.

On September 23, about ten days after I began to treat him, his breathing unexpectedly became stertorous and very slow—not more than six to eight per minute—his pulse faint and interrupted and consciousness apparently lost. These symptoms lasted about four minutes. Two days later, (on September 25,) a similar attack occurred, and after another interval of two days (September 27,) a third, which was so severe that I had no doubt the patient was dying. His pulse was not perceptible, the breathing Cheyne-Stokes, with the interval of cessation very long, the eyes open and the conjunctivæ entirely insensitive, skin cold and clammy. This attack lasted about five minutes, and was the final one. He remained much as before, except that the stupor was possibly rather less profound for three days, when (September 30), his temperature suddenly rose to 103, and his pulse became feeble and 120. In a few hours these symptoms passed away and he seemed rather more appreciative of his surroundings than at any time since the beginning of the attack. This appreciation became gradually more complete,

though mild delirium, with hallucinations of sight supervened, and a motor activity, similar in kind, though less marked than those described as occurring in the early part of the attack. In twelve days (October 12) the patient became entirely rational, and has continued so to the present time (more than two years). His physical health was regained more slowly, and he recognizes that he cannot perform the same amount of either mental or physical work which he could before, but he is able to feel as well as before by lessening his work.

I have been unable to find much reference in medical literature to cases like this I have described. Its peculiar features are that a period of nearly three months elapsed after the injury without symptoms sufficiently serious to attract much attention, and that then there was no evidence of inflammatory trouble, no persistent disorder of the ordinary physical functions, and no paralysis or spasm indicating that the motor areas were affected, though the higher cerebral functions were paralyzed to such a degree that for weeks all mental action was practically abolished and death barely escaped. Erichsen describes a condition quite similar under the name of cerebral irritation. He says: "Phenomena of cerebral excitement are mixed with those of loss of function. The patient assumes a peculiar attitude. He lies with the body bent forward, the knees drawn up to the abdomen, the legs bent on the thighs, the forearms flexed on the arms, and the hands drawn. The patient is restless and frequently changes his position, but never stretches himself out nor assumes the supine posture. The eyelids are firmly closed, the pupils are contracted, the surface of the body pale and cold, and the pulse is small, feeble and slow, being seldom above seventy beats per minute. The sphincters remain as a rule unaffected. The patient is indifferent to everything around him, and is only partially conscious. He may, however, be roused when addressed in a loud voice, and then look up, mutter indistinctly or frown and turn hastily away. His sleep is not stertorous. After a period of one to three weeks the pulse improves, the body becomes warmer, the flexed attitude is abandoned, and the mental instability gives place to mental feebleness and torpidity."

Erichsen also says that the injuries causing these symptoms are usually in the frontal region. The exact pathological lesson existing in this case can, I think, only be guessed at. It seems to me not improbable that it consisted of the minute punctiform hemorrhage which various observers have found scattered through the brain after falls that resulted fatally. So small that the effu-

sion was absorbed without unfavorably injuring the nervous tissue. No active treatment with drugs was thought wise, but great care was taken to keep the patient thoroughly nourished. He was persistently and systematically fed some nutritious liquid every two hours when awake during his illness. Though much of the time completely inactive and apparently almost unconscious, so that the irritation of the food in the pharynx often excited deglutition very slowly and incompletely, the amount of food administered was sufficient to sustain a man actively employed, and there was rarely evidence of indigestion. A small amount of sherry was also given daily. It is my belief that without this forced feeding he would not have lived.

The case shows also the importance of appreciating the possible ill effect of injuries to the head which do not at first appear serious, and of continuing a close observation of the patient. It is not improbable that the illness described might either have been avoided or its severity greatly mitigated had the patient been early placed in favorable conditions and properly treated.

SYPHILITIC INSANITY.

BY D. FRANK KINNIER, M. D.,

Assistant-Physician, New York City Lunatic Asylum, Blackwell's Island.

A. F., æt. 35, a native of the United States, has resided in this city for the past ten years. She was strong and healthy during her early life, having no illnesses except those commonly occurring in childhood. She contracted syphilis from her husband and now presents typical signs of that disease. She is now in a weak, feeble and excited condition, and is obliged to be kept in bed by slight restraint and to be quieted by sedative treatment.

She has had miscarriages and two children born alive who died of infantile syphilis. She was confined some weeks ago of a living child since which time symptoms of insanity have become noticeable assuming the form of melancholia with periodical attacks of excitement. Her tongue is swollen, thickly coated, tremulous, fissured and indented from pressure against the teeth which are covered with sordes. She has typical mucous plaques on the tongue. The buccal mucous membranes are dry and parched, and there is extensive faucial inflammation. The cervical and axillary glands are enlarged and there is a specific rash over her body.

She has indolent ulcers on her hips and lies in bed with her legs flexed upon her thighs and if moved she screams as if in pain. There are signs of active inflammation in the knee-joints which are swollen, erythematous and very tender on slight pressure. Over the anterior surface of the tibiæ are well marked bullæ of variable size which are typical representations of the bullous syphilodermata.

These bullæ are circular or oval in form and distended with a clear watery fluid which later becomes cloudy and thick owing to admixture with pus and blood. These bullæ on becoming distended with fluid contents break and dry up, thus giving rise to scabs and crusts which are of a yellowish and greenish color. Beneath the crusts will be seen erosions of an ulcerous nature with thickened and raised edges and exuding an ichorous pus. Her pulse raises from 100 to 130. There is a marked syphilitic pyrexia and her respirations are increased and labored; there is a turbulent action of the heart which upon auscultating reveals mitral insufficiency. Her pupils are dilated and irregular. On a mental

examination of her case we find that she is troubled with hallucinations of sight and hearing. She talks in an incoherent and rambling manner. She is mistaken in the identity of persons, and any footsteps she hears she imagines to be those of her former associates and calls out their names.

She developed delusions of conspiracy against her and imagines that her system is poisoned by a foul disease for which there is no remedy. She became dangerous to her children and suffered from delusions of a depressing nature. She had periods of marked mental excitement with motor restlessness and tremulousness, passing into a delirious state which gradually diminishing was followed by mild attacks of melancholia. Her articulation was tremulous very like that observed in general paresis.

She had several marked epileptic seizures which were probably due to the specific disease having extended to the brain. Treatment being of no avail, she gradually failed and died. In the above narrated case I think death was hastened by the specific poison having involved the brain tissues.

Her epileptic seizures I would attribute as due to syphilis, because upon the closest investigation I failed to obtain any evidence of the patient having had epilepsy or of having been hereditarily predisposed to this morbid condition. This disease having manifested itself at so late a period of life and after she had contracted syphilis, I think there are sufficient grounds for supposing her epileptic seizures to be due to the extension of the syphilitic virus to the brain tissues.

That brain syphilis exists there can be no doubt, as the brain is one of the organs most frequently attacked by this disease. When syphilis does attack the brain it has a particular predilection for the dura-mater giving rise to gummatous masses between the layers of this membrane which press externally on the internal tables of the cranium and inwardly on the brain substance, giving rise to a varied train of symptoms. Syphilis attacks the calvarium, especially the frontal bones, which becoming diseased, abscesses are developed the contents of which form thrombi and occlude the cerebral sinuses. Although syphilis frequently attacks the cerebral tissues, especially the dura-mater, yet it does not limit itself to this membrane, but involves in its course of destruction the basilar artery and also those which go to make up the circle of Willis. In the above mentioned case it was evident, judging from the symptoms, that there was syphilitic inflammation of the membranes which gave rise to arteritis and irritation in the

vessels and contiguous parts of the brain tissues. Fournier, Baumgarten, Friedlander and other eminent syphilographers who have made a careful study of this subject of brain syphilis, assert that when syphilis attacks the cerebral vessels it begins by affecting the inner coat or intima, and that the disease may extend through the intima by dissecting its layers and giving rise to aneurismal dilatations of the cerebral vessels. Then again there is produced a thickening of the intima inwards which produces occlusion of the calibre of the vessels to which diseased condition the term *endarteritis obliterans* is given on account of the thickening of the vessel walls or plugging up of the vessel by a thrombus. When syphilis attacks the brain and fissure of Sylvius we have symptoms of paralysis and aphasia produced in proportion to the extent of the parts involved. These symptoms disappear as the patient recovers from the specific effects of the disease. The treatment adopted in this case consisted of tonics, a nutritious and well regulated diet with a moderate use of stimulants. She was given mercury and iodide of potassium.

The mercury when not given by the mouth was given by inunction or hypodermically. The inunction treatment was carried out faithfully and systematically, but did not produce the speedy effects wished for. The plan of treatment adopted was to take a piece of mercurial ointment about the size of a pea and rub it into the inside of the arm, forearm, chest, on the surface of the abdomen, on the thighs and legs, for about five minutes at a time. This form of treatment was abandoned after a fair trial, and I resorted to another method of treatment, namely hypodermic injections of mercury, which seemed to me to produce a more ameliorative effect on the disease. The form of mercury used was corrosive sublimate. In giving the injection I have prepared a solution containing one ounce of water and six grains of corrosive sublimate, and of this solution I inject five minims or one-sixteenth of a grain, and gradually increase the amount to one-tenth of a grain.

Objection has been raised to this form of treatment on account of the injections producing pain, induration, inflammatory swellings and occasional abscesses. That these inconveniences occur is true; that they can be prevented by being cautious is equally true. In beginning the treatment of syphilis by hypodermic injections it is important to use a proper syringe, and the kind I prefer are those made of glass, because the mercury will not corrode them as is the case if a metal syringe is used. A short needle will not

answer for these injections, because the needle may not penetrate sufficiently into the tissues, and as a consequence the mercurial solution will not be absorbed and inflammation may follow as a result. But this objection can be overcome by using a long needle and inserting it into the cellular tissue, which is traversed by many absorbent vessels which readily take up the mercurial solution.

In giving these injections I always begin with minute injections, and gradually increase the amount injected until a full mercurial impression is obtained, and then care should be used to only give sufficient mercury to keep the system under a mild influence of the drug until the disease has disappeared. Great caution should be used in the treatment of syphilis by hypodermic medication, and the amount injected should be regulated according to the idiosyncrasies of the patient.

The parts I usually select for giving injections are the lateral regions of the back, especially the infra scapular and sacral regions, as these parts are well supplied with subcutaneous cellular tissue, and rapid absorption takes place.

My experience in the treatment of syphilis by this method is limited to a small number of cases, and the many objections which are raised against it have occurred to me, but by using great precaution in giving the injections I have overcome most of these objections and am much pleased with the results of this method of treating syphilis. Iodide of potassium in gradually increasing doses was given, beginning with ten grains three times a day, which I believe to be the best method of giving this drug in syphilis of the nervous system. Iodide of potassium is quickly eliminated from the system, and hence the advisability of giving this drug in the manner mentioned, in order that the constitutional effects of the drug may be obtained. I prefer to give this drug after meals and largely diluted with water. When very large doses are to be taken, as for instance, three or four drams in the twenty-four hours, I consider it preferable to dissolve this amount in about a half pint of water and allow small draughts to be taken at frequent intervals of the day. Taken in this way, I am satisfied that the good effects of the drug will be obtained, and that there will be less liability of the stomach being disturbed than if large doses are given.

A CASE OF GENERAL PARALYSIS APPARENTLY OF TRAUMATIC ORIGIN.

BY E. A. CHRISTIAN, M. D.,
Assistant-Physician, Eastern Michigan Asylum, Pontiac, Mich.

The accompanying notes of a case of extensive fracture of the base of the skull have been deemed of sufficient interest to justify their publication as a contribution to the clinical study of some of the more remote consequences of a traumatic basal meningitis.

Among the points of special interest may be noted the existence of an external wound apparently of trifling importance, having little in itself to indicate the extent to which injury had been inflicted upon the skull; an absence at the time of the injury of signs of compression, such as prolonged loss of consciousness, paralysis, etc.; the development after a few days of acute delirium and fever, pointing to inflammation of the membranes, but without accompanying paralysis; recovery from acute symptoms succeeded by a stage of mental weakness, passing slowly into a state of more profound intellectual disturbance, and a slowly developing paresis and incoördination of muscular movements; the existence of certain signs pointing to implication of the cerebellum, the most prominent of which was a disturbance of equilibrium; death five months subsequent to the receipt of the injury from sudden and total paralysis of voluntary motion.

At the autopsy there were found evidences of long standing inflammation both of *dura* and *pia* which had finally led to compression of the cord by an abundant effusion of serum into the sub-arachnoid spaces in the vicinity of the medulla. There was also an extensive fracture with slight displacement of the occipital bone. Symmetrical spots of softening existed on the inferior surfaces of both lateral lobes of the cerebellum. These were probably due to the slight but prolonged pressure exerted by the fractured plate of bone.

The symptoms which the patient presented at the time of his admission to the asylum were quite characteristic of general paresis, and seemed to warrant a diagnosis of paralytic dementia of traumatic origin; and in the light of the subsequent history of the case we are tempted to wonder if after all general paresis may not have been the primary condition, complicated by an acute process, and possibly hastened in its course by the injury itself.

Unfortunately a microscopical examination of the brain was not practicable.

L. M. T., age 53, a commercial traveler, had been a moderate drinker for many years. Previous to the great Chicago fire he had been a prosperous business man in that city, but loss of property, domestic infelicities and dissipated habits had combined to make the last ten or twelve years of his life unsuccessful. It was the opinion of his family physician that he had been losing mental vigor for several years previous to meeting with the injury.

On May 8, 1887, he was thrown heavily upon a stone, receiving the force of the blow upon the left side of the occiput. He is said to have been unconscious when picked up by the friends who were with him at the time, but upon reaching home after a ride of an hour in a wagon, he recognized his sister and was able to speak to her. The physician who was summoned found him vomiting frequently and suffering from shock, but able to render some assistance to himself. An irregular scalp wound not more than an inch in length presented itself, at the bottom of which there appeared to be a slight depression of the external table. The doctor observed no symptoms warranting, in his estimation, operative interference, and at once closed the scalp wound, which healed kindly in a few days without suppuration.

On the third day following the receipt of the injury the patient grew restless and manifested a tendency to wander in his conversation. This condition soon gave place to one of active delirium accompanied by a rise of temperature. Acute symptoms persisted for ten days, during which period his condition much of the time demanded the exercise of manual restraint to keep him in bed. His friends noticed at this time that his hand grasp on both sides was feeble, and that there was an uncertainty in his voluntary movements, more particularly noticeable when reaching for objects. As his delirium subsided he complained frequently of pain in the back of his head, and when occasion arose for a change of position he supported himself on his elbows and rotated his head with his body. Later he was reluctant to leave his bed, and seemed to distrust his ability to make proper use of his lower extremities. It then became noticeable that there was marked ataxia. As his sister expressed it, he seemed unable to "measure distances." He had difficulty in preserving his equilibrium, especially when turning around. Sudden changes of position, as in rising from a sitting to a standing posture, were especially liable to provoke staggering with subjective sensations of loss of

balance. There had been constantly present more or less discomfort at seat of injury, often amounting to severe occipital headache. Momentary flushing of face with prominence of superficial veins were a frequent manifestation.

After the subsidence of the active delirium there remained a condition of mental weakness associated with confusion of ideas. This varied in degree from time to time, but was always such as to require that he be kept under constant observation. He became self-willed and petulant, occupied himself in apparently purposeless acts, and showed loss of memory, especially for recent events. Notwithstanding the existence of varying delusions, some of an expansive type, his conversation was coherent and his reasoning plausible.

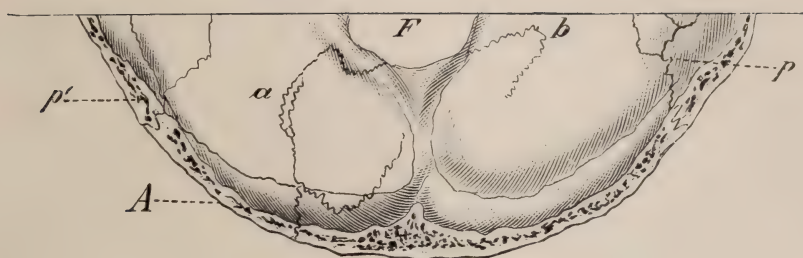
At the time of his admission to the Eastern Michigan Asylum, in September, 1887, four months after the date of his injury, he was controlled by the belief that he had large bodies of troops at his command, and that he was attended by an invisible double named "Jack." His mind was also fertile in schemes for the invention of machinery. Physically he seemed reduced. Temperature was normal, but his pulse and respirations were accelerated. The chief symptoms, however, pointed to a lesion of the nervous system. He spoke hesitatingly and with decided thickness of articulation. Gait was markedly ataxic. He walked with wide base of support, and experienced difficulty in moving over uneven places. Sudden turning of his head to the left was immediately followed by an abolition of equilibrium and a fall to the floor. He was, however, able to turn his head slowly in this direction, and to hold it there without loss of balance, but not without more or less pain. He could not lie on his left side at night without the development of distressing vertiginous sensations. There were in addition certain subjective symptoms. He complained frequently of a feeling as if cold water were trickling down his legs, and of a strange feeling in the left side of his brain, as if a big lump were there. He thought that if he could get rid of that he would be all right. He talked pleasantly and with some appreciation of his condition; but there was constantly present in his conversation a disposition to reduplicate final words. His extravagant delusions and marked ataxia, taken in connection with a history of previous intemperance and of a loss of mental vigor for some time prior to the accident, certainly justified a diagnosis of general paralysis in an advanced stage. But the locality of the injury and certain other symptoms sufficiently detailed above

suggested, even at this time, the presence of cerebellar lesion. He improved rapidly under treatment, both mentally and physically, so that at the expiration of a month he seemed to have dropped his delusions and to have gained in mental vigor. He was able at this time to go out with other patients to pick up potatoes, and felt pleased that he was able to do something useful. The ataxia and the distress about his head underwent little change. He spoke of these troubles frequently, and expressed much concern about them.

On the morning of October 24th, a little more than a month after his admission, he complained of not feeling well. He soon became nauseated and had frequent calls to pass his water, accompanied by a severe pain in testicles. There were also distressing vesical and rectal tenesmus. Two hours subsequently he was discovered by an attendant at stool, helpless and unable to rise. When assisted to his feet and supported for a minute, he regained sufficient power over his legs to support his weight. Attempts to dress himself were attended by such violent choreiform movements of his arms as to compel a discontinuance of the effort. The same difficulty accompanied his attempts to walk. His feet and legs flew about independently of efforts of the will to direct them. He had vomited repeatedly. The matter ejected consisted principally of the juices of the stomach, and was expelled in a jet without warning or accompanying nausea. There were no intellectual disturbances. A little later, as he lay on the bed, there occurred at intervals of a few seconds, severe clonic spasms of the flexor muscles, especially of the arms. The only pain complained of was an occasional twinge following the course of the sciatic nerve. He could not support himself in a sitting posture, and when raised from the bed he complained of intense vertigo and nausea. Reflexes at this stage were all normal.

Towards evening his temperature fell to subnormal (96° F.) Efforts at articulation became more labored, deglutition slowly failed, paralysis of voluntary movements progressed and finally became absolute. Owing to the difficulty in breathing, which was from the first thoracic, it was necessary for him to pass the entire night propped up in bed with his head supported by an attendant to prevent its falling forward upon his chest. From the first sensation was intact, and the slightest movement of his head caused him to cry out with pain. His intellect remained clear up to within a few minutes of his death, which finally resulted from failure of respiration eighteen hours after the appearance of paralytic symptoms.

Post-mortem examination held four hours after death. Skull-cap of normal appearance. *Dura* generally thickened and adherent to inner surface of bone, and separated with difficulty, tearing in spots where adhesions were firmest. The superior longitudinal sinus through a portion of its extent showed evidences of an inflammatory process. The walls were thickened and the inner coat had a pink appearance with numerous bead-like vegetations projecting from its surface. There were no signs of a thrombus. Along the vessels of the *pia* there was the usual milky exudate frequently met with in cases of insanity. An explanation of the symptoms of pressure upon the anterior columns of the cord was found on lifting the medulla from its groove in the basilar process of the occipital bone, when several drams of straw-colored serum escaped from between the membranes. Along the floor of the skull the *dura* was even more closely attached to the bone than at the vault. It was every where thickened and presented a dirty white appearance. As the membrane was raised from the surface of the occipital bone there at once came into view the remains of an extensive fracture which had involved in its course the groove for the lateral sinus on the left side, both fossæ, and the *foramen magnum*. The course and extent of the line of fracture is well indicated in the accompanying illustration. On the right side there was some over-riding of the edges of the fracture, and on the left side a corresponding separation easily admitting the handle of the scalpel. Over a corresponding area the surface of the bone was rough, presenting the appearance of bony granulations springing from the *endosteum*. Notwithstanding the great extent of the line of fracture there were no vestiges of any former laceration of any meningeal vessel. The inferior surfaces of both cerebellar hemispheres presented symmetrical spots of softening involving only the grey matter of the convolutions. The one on the left side was somewhat the larger, not more than one-half inch in diameter. In color the softened portions did not differ materially from the contiguous healthy tissue. There was no collection of pus visible at any point, either externally to the membrane, or within the brain. Cross sections of the brain were made without discovering further gross lesions. The intra-ventricular fluid was normal in quantity. There were no evidences of vascular changes.



POSTERIOR PORTION OF INTERNAL SURFACE OF
OCCIPITAL BONE.

At *a* there was separation of the edges of the fracture with corresponding over-riding at *b*. *A*, the groove for the lateral sinus. *F*, *foramen magnum*. *p*, *p'*, parieto-occipital suture.

MEDICAL JURISPRUDENCE.

[The following decision of Mr. Justice Mayham, handed down in Special Term, March 16th, sustaining the demurrers of the several defendants in the false imprisonment action of Alfred Ayers against Recorder Anthony Gould and Drs. Selwyn A. Russell and Daniel O'Leary, of Albany, N. Y., to the sufficiency of the complaint, will be read with interest and satisfaction by all physicians who are called upon to make certificates of insanity as well as by judges of courts of record who approve such findings of lunacy. One of the defendants, Dr. Selwyn A. Russell, was formerly an assistant physician in the State Lunatic Asylum, at Utica, N. Y.]

The learned Justice determines that a proceeding to examine a person for alleged lunacy is a judicial proceeding, and that persons acting in a legal capacity therein cannot be sued for their legal act therein. He finds that Drs. O'Leary and Russell acted in the Ayers matter under the authority of an order made by County Judge Nott, and that their examination of Mr. Ayers was properly and legally conducted. He also finds that Recorder Gould is an officer having the full powers of a Justice of the Supreme Court at Chambers, and that he did not exceed his jurisdiction and authority in granting the certificate for Mr. Ayers' arrest and commitment to an insane asylum.]

SUPREME COURT.

ALFRED AYERS,	}
<i>against</i>	
SELWYN A. RUSSELL, DANIEL O'LEARY AND	
ANTHONY GOULD.	

MAYHAM, J.

The plaintiff in his complaint alleges that he was, on the 15th day of April, 1887, forcibly and illegally arrested and conveyed against his will and committed to the custody of the superintendent of the insane asylum as an insane and proper person for care and treatment under the provisions of Chapter 446 of the Laws of 1874, and was forcibly and illegally confined as such alleged insane person for the period of thirteen days. The complaint further alleges that his arrest and imprisonment were caused and secured by the defendants by means of a certain certificate and approval thereof prepared and issued by them against the plaintiff for his arrest as follows, that is to say: "The certificates of the said Selwyn A. Russell and Daniel O'Leary, subscribed to and made by them under oath before John Gutmann, police justice and justice of the peace of the city and county of Albany, on the 14th day of April, 1887,

certifying and declaring in effect that they were residents of the city of Albany, in the county of Albany, and were graduates of the Albany Medical College, and had practiced as physicians, the said Selwyn A. Russell for ten years and the said Daniel O'Leary for fifteen years, and that their qualifications as medical examiners in lunacy had been attested and certified by Hon. John C. Nott, County Judge of the county of Albany; that on the 13th day of April, 1887, they personally examined the plaintiff, the said Alfred Ayers, of the city of Albany, in said county; that he was a man about sixty-three years of age, was married and was by occupation a carpenter, and that he was insane and a proper person for care and treatment under the provisions of Chapter 446 of the Laws of 1874; that the grounds whereon they found this opinion, separately stated, were substantially the same, viz.: that the plaintiff was under delusive beliefs with respect to his wife and daughter, and that there were no reasons for believing that such delusions or any of those ideas were founded on facts."

The complaint also alleged that the defendant, Anthony Gould, as Recorder of the city of Albany, did on the 15th day of April, 1887, fully and formally accept, adopt, endorse and approve the said verified certificates of Selwyn A. Russell and Daniel O'Leary, and their said opinions and the said grounds thereof as sufficient in matter of fact and in form of execution for the arrest and confinement of the plaintiff as insane and a proper person for care and treatment under the provisions of Chapter 446 of the Laws of 1874; but the plaintiff alleges that in neither of said verified certificates nor in said approval thereof was it declared that if plaintiff was possessed of said alleged delusion, or said delusive ideas, they rendered him dangerous to himself or others, nor that it was dangerous to permit him to go at large.

The complaint further alleges that the defendant believed and understood that it was usual upon such certificates to arrest and confine the alleged lunatic, and that he was arrested and committed under the same for fifteen days.

The complaint further alleged that an appeal was taken by the plaintiff on the 18th of April, 1887, pursuant to the provisions of Chapter 446 of the Laws of 1874, to Hon. Wm. L. Learned, a Justice of the Supreme Court, who called a jury to decide upon the fact of plaintiff's alleged lunacy, which jury, on the 27th day of April, 1887, found said plaintiff to be sane and said justice thereupon discharged him from confinement.

The complaint further alleges that said certificates and said approval thereof, in manner and form as aforesaid, were each and all of them made and issued by the defendants without proper and ordinary care and prudence and without due consideration, inquiry and proof as to the mental and physical condition of the plaintiff's health; also, that they were issued in violation of law and of the requirements of Chapter 446 of the Laws of 1874; also, alleges damages to plaintiff, that the arrest was false imprisonment and claims damages. To this complaint the defendants each interpose a separate demurrer, that the complaint does not state facts sufficient to constitute a cause of action.

There is no allegation in the complaint that either of the defendants was in any way connected with the arrest and confinement of the plaintiff, except so far as the certificates made by the doctors and the approval of the same by the recorder connected them with such arrest and confinement, and such

certificates and endorsements are set out or referred to in the complaint, and purport to have been made under the provisions of Chapter 446 of the Laws of 1874.

That was an act revising and consolidating the statutes relating to the care and custody of the insane, the management of asylums and the treatment and safe-keeping of lunatics. The first section prohibits the confinement of a patient in an insane asylum, public or private, for care and treatment, except upon the certificate of two physicians, under oath, setting forth the insanity of such person. It further provides that no person shall be held in confinement in any such asylum for more than five days unless within that term such certificate be approved by a judge or justice of a court of record of the county or district in which the alleged lunatic resides; and said judge or justice may institute inquiry and take proof as to any alleged lunacy, before approving or disapproving of such certificate, and may, in his discretion, call a jury.

The second section of such act prescribes the character of the certifying physicians and their requisite qualifications, and the manner in which these qualifications are to be certified before they are authorized to act, the kind of examination they are required to make, and the term within which the examination must be made before the commitment of the patient. Section three of said chapter prohibits the superintendent of an asylum from certifying to the insanity of a person.

The fourth section provides for keeping a record of the receipt of patients, their mental condition, etc., by the superintendent of asylums.

Section fifth provides that the county superintendent may send certain poor persons to any State lunatic asylum.

Section six makes it the duty of overseers of the poor and constables of a city or town, when a lunatic is found, to report to the superintendent of the poor of the county, who shall apply to the county judge, special county judge or surrogate, who, upon being satisfied, upon examination, that it would be dangerous to permit such person to go at large, shall issue his warrant, directed to a constable and overseer of the poor, commanding them to cause the lunatic to be apprehended and sent within the next ten days to the State lunatic asylum, etc.

It will be seen that sections one and two of the act of 1874 contain the provisions which are applicable to this case. The other sections referred to relate to other matters, having no especial reference to the question involved in this demurrer. The question presented by these demurrers is, whether the complaint in this action, taken as a whole, states facts sufficient to constitute a legal cause of action against these defendants, or either of them, as they have demurred separately.

The charge in the complaint against Russell and O'Leary is that the verified certificates made by them were each and all of them made and issued by the defendants without proper and ordinary care and prudence, and without due examination, inquiry and proof into the mental and physical condition of the plaintiff. The complaint, in terms or by fair implication, admits and alleges that Russell and O'Leary were physicians, residing in Albany, of the requisite qualifications; that they were duly authorized by Judge Nott to act as examiners, and that they made a personal examination of the patient and made their report, duly verified, in which they set forth the insanity of the

plaintiff. Does this allegation and admission, when read in connection with the balance of the complaint, furnish such reason, excuse and justification for the acts of these doctors as to exonerate them from legal liability upon the whole complaint?

The whole complaint must be taken together in determining whether it contains a cause of action, as will the allegations tending to discharge as those tending to charge the defendants. (Fleischman agt. Bennett, 23 Hun, 202; Calvo agt. Davies, 73 N. Y., 211.) The defendants, Russell and O'Leary, are not charged in the complaint with any lack of legal qualification or authority to do the act which they assumed to do, nor is there any fact stated in the complaint showing that they failed or neglected to perform all the acts which the statute required them to perform. The statute nowhere authorizes or requires them to state in their certificate whether or not it was dangerous to permit the patient to go at large, and any certificate by them on that subject would have been unauthorized and unofficial, if not a violation of their duty. The complaint does not charge the defendants, Russell and O'Leary, with any active participation in the arrest and confinement of the plaintiff, and only charges them with making the certificates without due care. Nor is there any charge or allegation that they acted maliciously. If the arrest and confinement of the plaintiff should be held illegal, still it is difficult to see how the acts of the defendants, Russell and O'Leary, as charged and explained in the complaint, could create any liability against them. The law does not prescribe the extent of the examination and inquiry that is to be made by the physicians, nor the nature of proof to be relied on by them. All they are required by law to do is to make their certificate after a personal examination by them of the party alleged to be insane. This the complaint alleges that they did. After such examination they certified that, in their opinion, the plaintiff was insane. In the absence of malice, which is not alleged, and acting in a quasi-judicial capacity, in which they were called upon to judge and determine, as well as to certify their opinion as to the mental condition of the plaintiff, it is not perceived how they could be made liable for false imprisonment for the arrest and detention of the plaintiff by an officer or keeper of the insane, even if he acted upon the statement made in such certificate.

False imprisonment is defined to be a trespass committed against the person by unlawfully arresting and imprisoning him without any legal authority. (2 Add. on Torts, 798.) In Williams agt. Williams, 4 T. and C., 251, the General Term of the Third Department held the defendant, in an action of false imprisonment, in confining a lunatic, when the defendant made the complaint, and handed the warrant to the officer who made the arrest, not liable to respond in damages. In Von Latham agt. Libby, 38 Barb., 339, it was held that a party applying to a magistrate who had jurisdiction of the subject matter, and making affidavit for a warrant of arrest, stating the facts of the case in an affidavit, without bad faith or malice, is not liable for the acts of the magistrate, even though it be erroneous. In Farnam agt. Feeley, 56 N. Y., 451-456, it was held that when the defendant was not the prosecutor in fact, but is sought to be made so by construction for having given information which led to the subsequent arrest, the motive is material, and if he acted in good faith, the plaintiff could not recover.

In the case at bar there is no allegation or pretense in the complaint that

the defendants, Russell and O'Leary, acted as prosecutors. They are only sought to be connected with the plaintiff's arrest by reason of the information given by them in the certificates, which were in the nature of official and judicial acts, and there is no allegation of malice or bad faith in the complaint. Nor does the complaint in this case state any fact wherein the doctors omitted to perform all the duties imposed upon them by statute, under which they are charged in the complaint with having acted. It is true that the complaint charges that the certificate was made "without due examination, inquiry, and proof." It is not alleged that it was made without any inquiry, examination or proof, but alleges that it was without due inquiry. The allegation that the certificate was made without due examination and inquiry is not an allegation of a fact, but of a conclusion of law. Any issue taken upon it would serve only as an issue of law as to whether the acts of the defendant set out in the complaint were due, proper or legal acts. (*Myers vs. McNab*, 14 How. Pr. R., 149.) So also the allegation that the examination, inquiry and proof were not made according to the provisions of Chapter 446 of the Laws of 1874 is a conclusion of law. (*City of Buffalo vs. Holloway*, 7 N. Y., 493; *Ensign vs. Sherman*, 13 How. Pr. R., 37; 14 How., 439; *Smith vs. Lockwood*, 13 Barb., 209.)

The complaint does not state the facts showing the defendant's omission of duty in the points complained of, but rather conclusions; no facts are stated showing wherein the certificates and approvals are defective or insufficient. In *Bailey vs. Richmond*, 49 Superior Ct. R., 519, it was held that an allegation in a pleading that an attachment was illegal, unauthorized and void, is not sufficient on demurrer, for it states a conclusion of law; so an allegation that the delivery of goods was "wrongful and unlawful," was not an issuable statement of fact, but the facts showing it to be unlawful and wrongful must be pleaded. (*Shroder vs. Bickin*, 22 Weekly Dig., 261.)

An allegation in a complaint that the defendant in concert did by connivance conspiracy and combination cheat and defraud the plaintiff out of certain goods, "did not state facts sufficient to constitute a cause of action." (*Cohoen vs. Goldman*, 76 N. Y., 284.) So an allegation in a complaint that the defendants "so carelessly and negligently kept and maintained a highway and so carelessly and negligently suffered it to be and remain out of repair as wrongfully and injuriously to turn and cause to flow upon lands of the plaintiff the water which otherwise and but for the wrongful acts and omissions of the defendant would not have flowed thereon." Held on demurrer to state no cause of action, as not stating facts. (*Smith vs. Fripp*, 23 Alb. Law J., 436; *Coveny vs. Mann*, 14 How. P., 163.)

The complaint in this action alleging that the certificate of the defendants Russell and O'Leary were made in a proceeding under the statute no action could be predicated on them either for false imprisonment, unless in the performance of that act they so far departed from the legitimate discharge of their duty as to remove the privilege or shield that the law throws about them in their certificate or affidavit in the discharge of their public duty.

This proceeding to determine whether or not the plaintiff was a lunatic is a judicial proceeding, and the certificates made in the regular and orderly course of this proceeding, are privileged as in other cases of evidence or testimony taken in a judicial proceeding. The phrase "judicial proceedings" received an interpretation in *Perkins vs. Mitchell*, 31 Barb., 471. "It combines any

proceeding before a court or officer, which is to result in any determination of such court or officer." In this case the court holds that the defendant was not liable for an affidavit in which he charged the plaintiff with being insane, if that affidavit was pertinent to the judicial inquiry then being made. (See also *Garr vs. Selden*, 4 N. Y., 91.) Within these rules I do not see how an action can be maintained against the defendants, Russell and O'Leary, upon the allegations in the plaintiff's complaint when all taken and read together.

It now remains to consider the demurrer interposed by the defendant Anthony Gould. The complaint alleges that the acts done by him, and for which he is sought to be made liable in this action, were done by him as recorder of the city of Albany. By section ten of Chapter 284 of Laws of 1872, the recorder of the city of Albany has all the powers of a Justice of the Supreme Court at Chambers, and it has been adjudged that the legislature had power to confer such authority upon the recorder. (*Hogan vs. Jones*, 17 N. Y., 316.) Clothed with such jurisdiction, the defendant Gould, as recorder, could discharge all the duties of a judge, or justice under section one, of Chapter 446 of the Laws of 1874. In assuming to act in that capacity and pass upon the certificate of the defendants, Russell and O'Leary, he acted judicially. He was called upon to adjudicate and determine, and that determination was a judicial act. (*Perkins agt. Mitchell*, 31, 8 Barb., 471.) The statute conferred upon him the power and made it his duty to approve or disapprove of the certificate of the doctors, and clearly he might do so upon the certificates themselves, or he might institute inquiry and take proofs, and also may, in his discretion, call a jury. (Section 1, Chapter 446, Laws of 1874.)

I cannot agree with the learned counsel for the plaintiff that before he could approve of such certificate he was bound to call a jury and take testimony. That provision of the section is permissive and rests in the discretion of the judge or recorder. All that the defendant Gould is charged with doing or omitting to do relates to the approval and endorsement of the certificates of Russell and O'Leary, and are all set out and alleged in the said complaint. If, as set out, the acts of the defendant Gould amount in law to a justification of the charges made in the complaint, or if, from reading the whole complaint, it appears that no cause of action is alleged against him in the complaint, the demurrer must be sustained. (23 Hun. 200, S. C. 77 N. Y., 231 supra.)

The complaint alleging that what the defendant Gould did was done by him as recorder, the only question that can be raised as to his acts is as to the jurisdiction to do the act complained of. If he had acted within the scope of that jurisdiction then he is protected, although he may have acted erroneously. We have seen that as recorder he had all the powers of a Justice of the Supreme Court at Chambers, and that by section 1 of Chapter 446 of the Laws of 1874, these certificates could be approved by a Judge of a Court of Record. We have also seen that upon authority the proceedings in matters of lunacy are judicial proceedings, (*Perkins vs. Mitchell*, 31 Barb., 471.)

Jurisdiction, as applied to judicial proceedings, is the right to act, the lawful power to hear and determine. A court has jurisdiction of the subject matter, when it has the legal right to hear and determine. (*Bunstead vs. Reed*, 31 Barb., 665.) Jurisdiction of the subject matter is the power to act upon the question and to determine and adjudge the particular facts called

for, the exercise of the abstract power. (*Hunt vs. Hunt*, 72 N. Y., 230.) Having jurisdiction in the premises within the above definition, and, as alleged in the complaint, having acted or assumed to act within that jurisdiction, he is protected from liability growing out of such judicial acts. In *Cunningham vs. Bucklin*, 8 Cowen, 178, it was held that a commissioner authorized under certain circumstances to perform certain duties that may be performed by a Supreme Court Judge within his jurisdiction, acts judicially, and an action will not lie against him for errors, mistakes or even official misconduct. The question in this class of cases is, had the judge, magistrate or officer power to act at all? If he had, he cannot be made liable for errors of judgment. He may have misapprehended the true import of the law, but no principle is better settled than that for mistakes or errors in judgment he cannot be made liable. In the case at bar the recorder was given general jurisdiction to approve of certificates of physicians in cases of insanity. Whether he had jurisdiction of the plaintiff would depend upon the facts presented in the particular case and his decision upon that was a judicial act.

The recorder having general jurisdiction of this class of cases, is called upon to adjudicate when such case arises and cannot be made liable for such adjudication. (*Redange vs. East River Savings Bank*, 63 N. Y., 460; *Lange vs. Benedict*, 73 N. Y., 30.) A justice in passing upon the sufficiency of an affidavit to issue a warrant acts judicially and is not liable for any error of judgment. (*Harrison vs. Clark*, 4 Hun, 685.) So when the recorder of Schenectady held the plaintiff to bail upon an insufficient affidavit, held that he acted judicially, that having general jurisdiction to hold to bail he could not be made responsible for an error of judgment. In such cases the judge or officer is required to act and has jurisdiction to do so. An error of judgment will not make him liable. (*Hill vs. Munger*, 5 Lansing, 105; *Heman vs. Brotherson*, 1 Denio, 537.) So when a police magistrate issued a warrant upon a complaint which did not state the offense to have been committed within his jurisdiction; held that he acted judicially and false imprisonment would not lie. (*Beach vs. Cochran*, 32 Hun, 521.) Whenever duties of a judicial character are imposed upon a public officer and he is called upon to decide he acts judicially, and cannot be made liable for his acts in a civil action.

This doctrine seems both upon principle and authority to be of such universal application that a further citation of authorities seems unnecessary. As the complaint charges that all the acts of the defendant Gould complained of were done by him as recorder, and as his acts in that capacity are, as has been seen, judicial in passing upon certificates of lunacy, it seems to follow that the complaint does not, as to him, set forth a cause of action. The demurrers in this case must be sustained and the defendant must have judgment thereon, with leave to the plaintiff to amend his complaint within sixty days on payment of costs.

IN ASSEMBLY.

February 14, 1888.

Introduced by Mr. CURTIS—(by request)—read twice and referred to the committee on ways and means—reported from said committee for the consideration of the House and committed to the committee of the whole—ordered, when printed, to be recommitted to the committee on ways and means.

AN ACT in relation to the care and custody of the pauper insane and indigent insane in the counties of this State, except New York, Kings and Monroe counties.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The State shall be divided into as many asylum districts as there are State insane asylums in this State, as hereinafter defined, and the president of the State Board of Charities, the State Commissioner in Lunacy, and the comptroller, and their successors in office, shall constitute a commission, who are hereby empowered to define the boundaries of the several districts into which the State shall be divided; provided, however, that no county shall be divided in such classification, and that not more than one of the existing State asylums be embraced in any one district. Before any decision of said commissioners shall be made the trustees of each State asylum shall be entitled to a special hearing before them. A meeting of said commission shall be called, within sixty days after the passage of this act, by the State Commissioner in Lunacy, at Albany, at which meeting the commission shall choose its own chairman. From time to time, whenever it shall be deemed necessary, to more conveniently care for the insane in the various asylums, the said commissioners shall be empowered to change the limits of such district under the limitations provided in the former part of this section.

§ 2. Whenever said commissioners, or a majority thereof, shall have made such classification of the several counties into the said asylum districts, they shall make and sign a report to that effect, and file the same with the secretary of State, and send a copy thereof to the superintendent of each State and county asylum, and to the clerk of each county in the State, to be filed in his office, and thereafter the State shall for all the purposes of this act be deemed to be divided into such districts. Any change in such classification thereafter can only be made by filing a like report and sending a copy thereof to the clerks of all counties affected by such change, as well as to the boards of managers of the respective State asylums, and the superintendents of the poor in the county affected by such change.

§ 3. Each of the State asylums for the insane shall receive patients, whether in an acute or chronic condition of insanity, from the district in which the asylum is situated, subject to the power of removal from one State asylum to another under the provisions of section ten of this act.

§ 4. There shall be erected on the grounds of each State asylum a sufficient number of buildings of a moderate size, each being designed to accommodate not less than twenty nor more than one hundred and fifty patients, to meet the wants of the pauper insane of the district in which the asylum is situated.

The plans for such buildings shall be obtained by the managers of each State asylum, and presented to the comptroller, the president of the State Board of Charities and the State Commissioner in Lunacy for approval, who are hereby constituted a board for this purpose. They shall have the power to call the superintendent of the asylum, on whose grounds the said buildings are proposed to be erected, before them for explanations and suggestions in regard to the same. The said board may accept, modify or reject such plans, whereupon the managers of said asylum shall proceed accordingly, and no appropriation shall be paid to such managers for the erection of such buildings, unless there be a substantial compliance with the directions of said board, to be certified by the State commissioner upon and after due examination and inspection of the premises.

§ 5. The State commissioner shall ascertain by conference with the superintendents of the poor, or otherwise, the number of pauper patients and indigent patients to be provided for under this act. The number shall then be apportioned by him among the existing State asylums in such a manner that the whole number of patients in each asylum shall not be less than six hundred. This section shall not be construed to affect the number of patients now at the Willard asylum for the insane. Whenever a new State asylum is established a number of pauper or indigent patients or both shall be assigned to it, to be determined by such State commissioner, whereupon said asylum shall be deemed to be embraced within and governed by the provisions of this act in all respects so far as the same may be applicable; and whenever any new State asylum shall be established the commission provided by section first of this act are hereby required to divide the State again into districts in compliance with the provisions of said section.

§ 6. The managers of each State asylum in erecting the buildings herein provided for, shall proceed upon the rule to limit the cost of the same so that it shall not exceed three hundred dollars *per capita* for the patients proposed to be accommodated. They shall cause the same to be completed and ready for occupancy within one year after this act goes into effect, or, if that be not practicable, at the earliest time thereafter consistent with economy and the best interests of the State. After the buildings are completed, they shall cause the fact to be certified to the State commissioner.

§ 7. After receiving such certificate the said State commissioner shall forthwith notify the superintendents of the poor in each county within the district, in which said asylum so certifying is situated, to send all pauper patients to said State asylum. All town and county superintendents of the poor sending a patient to any asylum under the provisions of this act shall, before sending him, see that he is in a state of perfect bodily cleanliness, and is comfortably clothed in accordance with regulations to be prescribed by the State commissioner. The said patients shall be sent by said town and county superintendents of the poor, in a mode prescribed by the State commissioner, to the State asylum at the expense of the State, and any State asylum to which said patient is to be sent may be required, by and under the regulations made by said State commissioner, to send a trained attendant to bring the patient to the asylum. All bills for maintenance shall be paid by the treasury of said county according to the by-laws of said asylum upon the order of its steward. The amount requisite to pay such bill shall be annually raised and levied by the supervisors of said county, as well as such further

sums as will probably cover all similar bills for one year in advance. Said county, however, shall have the right to require any individual, town, city or county that is legally liable for the support of such patient, to reimburse the amount of said bills with interest from the day of paying the same, and shall have the like right and remedies, as if such expenses had been incurred for the support of such patient under now existing laws. After said patient or patients has or have been delivered to the managers of said asylum, the care and custody of the county authorities over said insane persons shall cease.

§ 8. There shall be a uniform charge by all State asylums to all counties included within this act for the custody, care, maintenance, treatment and clothing of all insane patients, whether the case be acute or chronic, not exceeding one dollar and fifty cents *per capita* per week. Any reduction below one dollar and fifty cents per week shall be fixed by the State Commissioner in Lunacy in conference with the Managers and Trustees of the State asylums, but nothing in this act shall be construed to prevent the managers of said asylums from making a contract with the relatives or friends of any insane person for payment for his care and treatment when there is room not required by public patients. Any such sum so paid shall be carried to the general fund of such asylum.

§ 9. In case the buildings in any State asylum should at any time happen to be overcrowded in carrying out the provisions of this act, or the number of said buildings be reduced by fire or other casualty, the State commissioner is hereby empowered to transfer patients to another asylum, where they can be conveniently received, or to make, in special emergencies, temporary provision for their care, but the expenses to the county to which the patient is chargeable shall not be increased by reason of the provisions of this section, but all expenditures under this section shall be chargeable to the State, in accordance with the provisions of section fourteen hereof.

§ 10. Whenever in any district, established under the provisions of this act, the buildings now existing and those herein provided for shall be filled with patients to their full capacity, the managers thereof shall not receive further patients until vacancies occur, or new or additional accommodations are provided, and then only to the extent of the accommodations supplied. In any such case the condition of the asylum, so far as pertains to the purposes of this section, shall be certified by the managers or trustees thereof to the State commissioner, whereupon he shall, in compliance with rules to be made by him and communicated from time to time to the superintendents of the poor and the managers and trustees of the respective State asylums, make an order for the transfer of any pauper patient from the district in which there are no suitable accommodations to one, if any, in which suitable conveniences for his care exist. Preference is to be given to an asylum in an adjoining rather than to one in a remote district. Such order shall be executed in a mode prescribed by the State commissioner. The expenses of the transfer of said pauper patients to said asylum beyond the limits of the district where the patient is regularly to be cared for, shall not be chargeable to the county but shall be paid on the certificate of the State commissioner from the State appropriation or appropriations for the care and custody of the pauper insane, to be made in accordance with the provisions of section fourteen hereof. In case any insane person, his relatives, guardians or friends may desire that he may become an inmate of any State asylum situated beyond the limits of the

district where he resides, and there be sufficient accommodation there to receive him he may be received there in the discretion of the State commissioner and the superintendent of such asylum. Any expense of removal, in such case, must be borne by said insane person's guardians, relations or friends as the case may be.

§ 11. The trustees or managers of each of said State asylums are hereby authorized to appoint a committee of said board, which committee shall be empowered to discharge the patients provided for in the asylum from said asylum in the interval between the meetings of said board, such discharge to be granted in the same manner, and under the same restrictions, and to have the same effect as if granted by said trustees at a regular meeting of the board of trustees.

§ 12. The State commissioner, whenever he may deem it necessary and expedient, by reason of overcrowding, and in order to prevent it, shall in his annual report to the legislature, recommend the erection of such additional buildings on the ground of any or all State asylums then existing, as shall in his judgment provide sufficient accommodations for the immediate prospective wants of the insane of this State, or, if he think it more expedient, shall recommend the establishment of another State asylum or asylums.

§ 13. After the erection of the buildings herein provided for, and the transfer of the patients to them at that time under county care, it is the intent and meaning of this act that no insane person shall be kept under county care within the counties embraced in this act, but that all the insane being now or becoming a county charge shall be transferred to the respective State asylums without unnecessary delay.

§ 14. The managers of each of the State asylums shall hereafter furnish the comptroller, on or before the fifteenth day of September in each year, an estimate of the probable number of patients chargeable to the counties who will be inmates of their respective asylums during the year beginning October first next ensuing, and shall also furnish an estimate of the cost of maintaining persons so chargeable to the counties during the ensuing year. On the basis of these estimates the comptroller shall, in his next annual report to the legislature, state his estimate of the deficiency to be provided for by the State for the support of such insane persons, after deducting the sum paid, or to be paid, by the counties, at the rate of one dollar and fifty cents per capita per week.

§ 15. This act shall not include the county of New York, nor of Kings, nor of Monroe, nor shall it embrace the State Asylum for Insane Criminals at Auburn, nor the State Asylum for Insane Criminals at Matteawan, nor the State Asylum for Insane Emigrants, on Ward's Island, in New York City.

§ 16. The word "insane," as used in this act, shall be construed to include all persons of unsound mind, except idiots. The expression "State commissioner," wherever used in this act, shall be construed to mean "State Commissioner in Lunacy."

§ 17. After this act goes into effect, no county shall be exempted by the State Board of Charities from the provisions of this act under color of any existing law; and all exemptions heretofore granted by said board, under the provisions of chapter seven hundred and thirteen of the laws of eighteen hundred and seventy-one, or of acts amendatory of the same, when the provisions of section six of this act shall have gone into full effect and the

buildings provided for in section six of this act shall have been erected, shall be revoked and cease. But nothing in this act shall be construed to prevent such board from revoking, according to now existing law, any such exemptions heretofore granted, until the provisions under section six shall have gone into effect.

§ 18. No insane person now or hereafter under care and custody in any State asylum in this State, shall be restored or committed to the care and custody of superintendents of the poor in a county, or other county, town or city authorities; and the said county superintendents, or county, or town, or city authority are hereby forbidden to receive any such patient which may be returned or committed to them under color of any order prohibited by this section.

§ 19. The sum of five hundred thousand dollars is hereby appropriated out of any moneys in the treasury not otherwise appropriated to carry into effect the provisions of this act.

§ 20. All acts or parts of acts inconsistent with this act are hereby repealed.

§ 21. This act shall take effect immediately.

ABSTRACTS AND EXTRACTS.

INSANITY FOLLOWING THE USE OF ANÆSTHETICS IN OPERATIONS.—Dr. George H. Savage, in a paper read in the section of Psychology at the annual meeting of the British Medical Association, held in Dublin, August, 1887, says: "All writers and observers have noticed that it is very rarely that one cause alone is sufficient for the production of insanity, and that usually there are several predisposing causes which may have been in operation for a long time as well as one or more exciting causes which may have been in action for much shorter periods." To make his proposition more clear he adds: "Any cause which will give rise to delirium may set up a more chronic form of mental disorder quite apart from any febrile disturbance. (a) The most common form of mental disorder which comes on in such cases is of the type of acute delirious mania; (b) though such mental disorder is generally of a temporary character, it may pass into chronic weak-mindedness, or it may pass into (c) progressive dementia which cannot be distinguished from general paralysis of the insane."

He then reports cases in which alcohol and acute diseases, such as scarlet fever, measles and pneumonia seemed to be the immediate exciting cause of an outbreak of acute insanity, and also one case in which a toxic dose of belladonna, taken in mistake for cough medicine, caused a typical attack of acute mania. In all the cases reported the patients were strongly predisposed to nervous affections.

Proceeding to the more special part of his subject he reports four cases in which the administration of an anæsthetic seemed to him to be the immediate cause of insanity. In the first case chloroform was administered to a young man who had been insane, but was on the road to recovery, to facilitate the examination of an injured hand. Immediately his old maniacal condition returned with the same antipathies and the same delusions. After recovering from the effects of the chloroform his mind became clearer, and he was ultimately discharged well.

The second case is that of a young woman who had suffered a very acute attack of delirious mania. Two years after an operation was necessary, for which chloroform was given, after which she again passed through another maniacal attack.

The third case was that of an old man whose mind became affected after the administration of ether during an operation for cancer of the rectum, and the fourth case was one complicated by chronic alcoholism, in which insanity followed the administration of nitrous oxide during the extraction of some teeth. He also says that insanity has followed in several cases of ovariectomy, but admits that the evidence is not sufficient to connect the insanity with the anæsthetic.

He closes his paper with the remark that one or two practical questions arise for the surgeon, one of the most important being whether neurotic inheritance or neurosis in the individual, as proved by previous attacks of insanity, should in any way affect the prognosis in operations, and to what degree it should interfere with operations of convenience not essential for prolonging or saving life.—*British Medical Journal*, December 31, 1887.

THE DETECTION OF CONCEALED INSANITY BY NITROUS OXIDE GAS.—Dr. Allan McLane Hamilton read a paper on this subject before the Section in Neurology of the New York Academy of Medicine last December, and reported two cases of insanity in which the diagnosis was difficult before the administration of nitrous oxide. For ten years Dr. Hamilton has used this gas for the treatment of insomnia and hysteria, and its value as a diagnostic aid in concealed insanity was thus accidentally suggested. A woman, forty years of age, had been under his care for nearly a year. She suffered from headache, which was most intense and frequent after menstruation, and was emotional and nervous. She entertained rather bitter feelings towards her husband and brother, but repeated conversations failed to show any intellectual weakness, and there was no irregularity in her behavior that would warrant any interference with her liberty. As she was troubled with insomnia which hypnotics failed to relieve, a mixture of nitrous oxide and air, in the proportion of two parts of the former to one of the latter, was used. After she had taken a little more than two gallons she became slightly excited in manner, talking to herself, and suddenly seizing her dress she drew it up and looked intently at it, saying rapidly and excitedly, in a high-pitched voice: "There it is! blood! blood! They will kill me! Save me!" When remonstrated with she said: "John and Edmund (her husband and brother) are trying to kill me because I will not do what they wish me to. Oh, they are after me day and night. I see it! blood! blood!" When the gas was pressed she became quiet, lapsed into a deeper condition of unconsciousness, awoke without any recollection of what had occurred and was apparently her ordinary self. In the course of a few months her morbid mental condition became so marked that she was sent to an asylum.

The second case was a young Irish girl who had been "queer" for some years, but had never done anything of a decided irrational character. Her friends became alarmed because of her religious depression. She admitted having done queer things, but explained them in a way which made her case appear purely hysterical. Dissatisfied with an interview of nearly an hour, Dr. Hamilton administered the gas, giving her a half-bagful, when she burst into tears and wrung her hands. She declared that the priest had selected her specially for condemnation, that she did not dare to go to church, and that she was damned. A diagnosis of religious melancholia was made and subsequently borne out.

Dr. Hamilton lays stress upon the importance of not administering the gas for the mere production of an undefined and chaotic mental state. All anæsthetics may produce mental confusion, when the utterances of the patient are ill-regulated and valueless; and there is great danger, he admits, of suggesting ideas before the administration of the anæsthetic which may be acted upon after its influence has begun. It is the primary stage of mental exaltation which is to be produced, which does not necessarily bring with it complete abolition of consciousness.—*New York Medical Journal*, January 28, 1888.

INSANITY AND ADULTERY.—The London correspondent of the *New York Medical Journal*, (March 17, 1888), writes:

"A curious and, I believe, in this country, unique, case was heard in the

divorce courts last week. The lady, from whom her husband sought a divorce on the ground of adultery, did not deny it, but pleaded that at the time of the adultery she was insane, and therefore not responsible. I believe a similar line of defense has once been raised in America, but I think I am right in stating that it has not before been raised here. It was shown that the husband and wife had been separated for some time on account of repeated outbreaks of mania on her part, that he had had charge of the children, that he had done all in his power to have the wife taken care of, and, further, that in every step he had consulted and followed the wishes of her own parents. The jury found without hesitation for a divorce."

It is true that this subject is somewhat novel, but it is a mistake to suppose that the case referred to above is the first that has ever occurred in England. There are two such cases reported in English jurisprudence, while in our own country there have been no less than five, the first (*Broadstreet v. Broadstreet*, 7 Mass., 473), occurring as early as 1811. In three cases proceedings were stayed by the court, while of the remaining two the court granted dissolution in the one, and in the other remarked that it might, if the proceedings were continued and the evidence established the charge contained in the libel.

Dr. Ordonaux in his work on the JUDICIAL ASPECTS OF INSANITY reviews this subject at length and says: "If marriage were purely a civil contract then its breach by either party would justify a dissolution. But it is recognized in all Christian countries as something more than a contract, and by the *jus gentium* it is also constituted a special status. Hence it is doubtful whether any court could, by mere implication of power, and in the absence of special legislative permission, decree any higher remedy for adultery committed by an insane wife, than a judicial separation *a mensa et thoro*. A dissolution of a marriage once valid is a judicial act which must rest upon the authority granted by the law-making power. It can be applied only to those who intentionally and therefore criminally violate the marriage contract. For a divorce *a vinculo*, although a civil act, carries with it a criminal effect, since it is in the nature of a personal penalty affixed to a personal wrong. But since a lunatic has no legal capacity to commit an act involving personal punishment, he can do nothing which carries with it a criminal effect, and inasmuch also as insanity is not a ground for divorce at common law, any more than any other disease, so wrongful acts committed by one afflicted with it are equally impotent as causes justifying a dissolution of the marriage contract.

In cases, however, where a libel for divorce is filed against a lunatic wife on the ground of adultery, a stay of proceedings should be granted in order to give the respondent sufficient time for recovery, and thus to make a defense to the charge. From the very nature of the offense, the respondent must be the one most able to meet such a charge, and thus to instruct counsel in her defense. And it is only when her disease has proved itself incurable from lapse of time, that a decree should be entered for a limited divorce, since that does not disturb the status absolutely, but only suspends its operation, meanwhile securing maintenance for the wife, protection to the husband, and in case of recovery, giving opportunity for reconciliation, if the parties themselves should see fit to apply for a revocation of the decree under the statute."

ATHETOSIS ASSOCIATED WITH INSANITY.—*Brain* (Parts XXXIX and XL,) contains a report by T. Duncan Greenlees, of the City of London Asylum, of an interesting case of athetosis associated with insanity. The muscular contortions followed upon an attack of hemiplegia when the patient was twenty years of age, and the mental impairment did not show itself until some time afterwards. Dr. Greenlees has been unable to find any other recorded case of insanity succeeding on well-defined athetosal symptoms.

Much doubt exists as to the localization of this disease. Dr. Gowers states that the symptoms point in many cases to a partial recovery of those nerve cells, whose functions have not altogether been destroyed, after a primary hemiplegia, while Dr. Bastian is of opinion that the condition termed "athetosis" is merely a variety of post-hemiplegic chorea, and seems to accept the theory of Oulmont, who maintains that the symptoms are due to what he calls "athetotic fibres," which are supposed to exist in the posterior part of the internal capsule. Dr. Greenlees thinks that clinical and pathological research indicates that the lesion is more deeply seated than the cortex of the brain, and adds that an injury to the motor fibres of the internal capsule would explain the most of the symptoms in the case he records.

THE NEW ASYLUM FOR INSANE CRIMINALS.—We publish in our present issue a ground plan of the proposed new criminal asylum at Matteawan-on-the-Hudson. The following description of the buildings by Mr. Perry, the architect, will be read with interest:

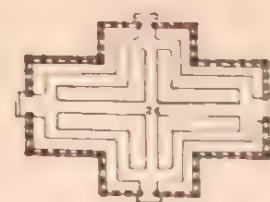
To the Commission on New Asylum for Insane Criminals:

GENTLEMEN.—I would respectfully submit for your consideration the following general description of the proposed asylum buildings for insane criminals, designed to be located about one mile east of the villages of Matteawan and Fishkill-on-the-Hudson, Dutchess county, N. Y.

The immediate site selected for the buildings is most favorable for the purpose, being near the eastern boundary of, and on a farm of about 250 acres, owned by the State. The elevation from the bottom land to the summit of the building site is about 75 feet, the ground sloping at an easy grade from the base of the buildings, until it reaches the level land in three directions, viz.: to the northerly, southerly and westerly, rendering the buildings conspicuous from all directions.

The plans for the various buildings for the institution have been carefully considered, with a view to adapting them to the special requirements of the class for which it is intended, namely, the criminal insane.

The administration building will occupy a central location with reference to the ward buildings, and about seventy-five feet in advance of the southwesterly façade of the same. For convenience of administration the ground floors of all the buildings will be on the same level and connected by one-story corridors. The main entrance to the administration building will be through a loggia, 14x14 feet, opening into a short transverse hall fourteen feet wide, and connecting with a well-lighted, longitudinal hall, aggregating thirteen feet, six inches wide by ninety-two feet long, from which, together with the main staircase hall, communication will be had with all the rooms on the first floor, viz.: A general reception-room, twelve by thirteen feet; parlor, eighteen by

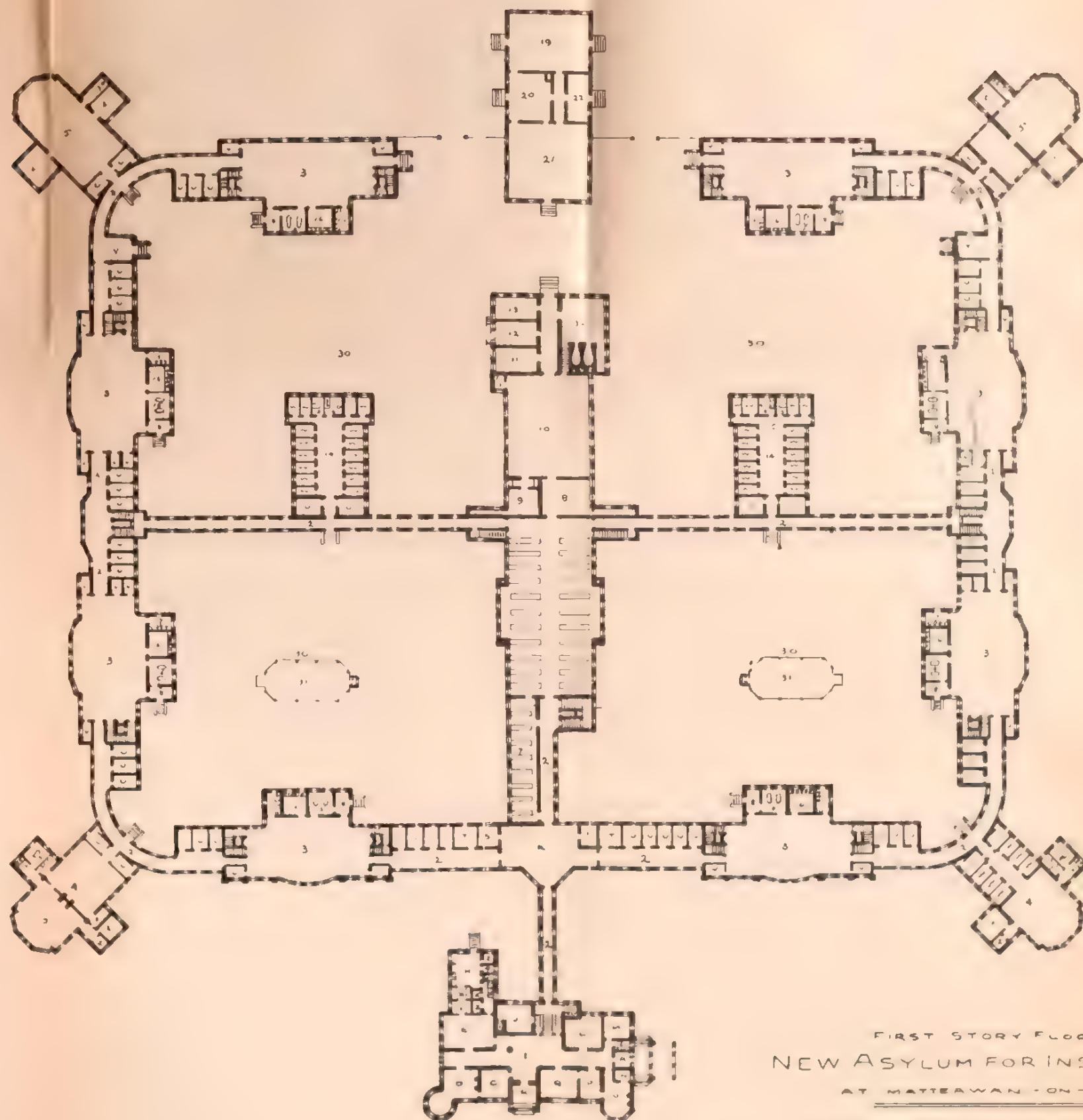


- 1 ADMINISTRATION BUILDING
- 2 CONNECTING CORRIDORS
- 3 DAY ROOMS
- 4 INFIRMARIES & SANITARY
- 5 WORK SHOPS FOR PATIENTS
- 6 DINING ROOM FOR MEN
- 7 " " " " WOMEN
- 8 PANTRY
- 9 REFRIGERATORS
- 10 KITCHEN
- 11 BREAD ROOM
- 12 STORE ROOM
- 13 EMPLOYEE'S DINING ROOM
- 14 ISOLATED BUILDINGS FOR DISTURBED PATIENTS
- 15 BATH ROOMS

- A VESTIBULE
- B HALL
- C RECEPTION ROOM
- D PARLOR
- E DINING ROOM
- F CHINA CLOSET
- G PANTRY
- H KITCHEN
- I VAULT
- J STEWARDS OFFICE
- K LIFT
- L DISPENSARY
- M LABORATORY
- N PRIVATE OFFICE
- O SUPERINTENDENT'S OFFICE

- 16 LAVA TUBS
- 17 WATER CLOSETS
- 18 BREAKING ROOMS
- 19 LAUNDRY
- 20 DYEING ROOM
- 21 DRESSING " "
- 22 ENGINE " "
- 23 BELLOWS " "
- 24 LUGGAGE " "
- 25 CLOTHES & LINEN ROOM
- 26 WASHING HOUSE
- 27 MORTUARY
- 28 ICE HOUSE & COOLING ROOMS
- 29 STABLE
- 30 ALDERY COURTS
- 31 COVERED WALKS
- 32 BARN
- 33 EMPLOYEE'S COTTAGE
- 34 CARPENTERS SHOP
- 35 BACKYARD " "
- 36 ENGINE ROOM

- P LIFT
- Q MEDICAL OFFICE
- R LIVING
- S VISITING ROOMS
- T SUPERVISORS ROOMS
- U ATTENDANTS " "
- V SECLUSION " "
- W SINGLE " "
- X OPERATING ROOM
- Y COAT ROOM " "
- Z CLOSETS & STORE ROOMS



FIRST STORY FLOOR PLAN OF
NEW ASYLUM FOR INSANE CRIMINALS

AT MATTERWAN - ON - THE HUDSON N. Y.

1:4000000 100 100 100
SCALE OF FEET



thirty feet; medical office, eighteen by twenty-one feet; superintendent's office, fifteen by twenty-one feet; clerk's office, thirteen feet six inches by eighteen feet; dispensary, eighteen by twenty-one feet; laboratory, thirteen feet four inches by eighteen feet; steward's office, eighteen by nineteen feet, containing a fire-proof vault three feet four inches by six feet; officer's dining-room, twenty by thirty feet; kitchen, fifteen by nineteen feet; pantry and china-closets, each seven by eleven feet; refrigerator, five by eight feet; store-room, seven by eight feet; closet in servants' hall, three feet four inches by eight feet; servants' staircase and hand elevator, both extending from the basement to the attic; two toilet-rooms, respectively six by seven feet and six feet by eight feet four inches; a longitudinal hall in the second and attic stories, respectively, corresponding with the hall in the first story, from which access will be had to the various officers' and servants' apartments. The plans provide for a broad and easy platform staircase from the first to the attic stories. There will be three toilet-rooms in the second story, fitted with baths, wash-basins and water-closets, and one toilet-room in the attic for the use of domestics.

The hospital buildings proper will be ten in number, viz.: Six ward buildings proper, two infirmaries for the sick and feeble, and two isolation buildings,* especially planned and constructed for the most dangerous and vicious class of patients. This group of buildings, including four airing courts, will occupy a plot of ground 500 by 600 feet. The six ward buildings will be two stories high, and arranged on three sides of a right-angled parallelogram. The distance across from the northerly to the southerly façades of the flank buildings will be 533 feet. The inner courts thus formed will be subdivided into four airing courts as hereinafter described. The two infirmary buildings will be one story high, located outside of the inclosure, joined centrally with the curved corridors, which connect the front and flank buildings. These infirmary buildings extend out at an angle of forty-five degrees, a distance of seventy-five feet from the curved corridor, and are thirty-five feet wide, with extensions for accessory accommodations, that is, bath-rooms, water-closets, surgery, etc., on either side.

The southwesterly, or front, and the first two flank ward buildings are conveniently connected, and at the same time dissociated by the fire-proof corridors above referred to, at either end of which, and just outside of the four day-rooms of these buildings, are twelve single rooms, six for each ward, for attendants. The entrances to the infirmary wards are from these corridors, on either side of which there will be two attendants' rooms, seven by thirteen feet. In one of the infirmary buildings, there will be six single rooms, for seriously sick patients, each, seven by ten feet; a day-room or hospital ward, thirty by forty feet; operating room, twelve by sixteen feet; bath-room ten by twelve feet; water-closet, six by twelve feet; lavatory, six by sixteen feet six inches; and a closet five by eight feet, for pails, mops, brooms, etc. The other infirmary building is intended for convalescent patients, and has a dormitory, thirty feet four inches by thirty-three feet, day-room, thirty by

* The isolation buildings and their connecting corridors are not included in Sullivan & Clark's contract, for the reason that the present appropriation is not sufficient to cover the cost of construction. But separate proposals for these were received subject to the action of the Legislature.

thirty-three feet, with accessory rooms as described in the first infirmary building.

Between the day-rooms of the first and second flank buildings on either side there will be a spacious sitting-room, and twelve single rooms, six for either building, for attendants. Located in the centre between these buildings, on either side, will be a broad, fire-proof platform staircase, extending from the first to the second stories.

The most direct communication from the administration building to the hospital building is through a low, one-story, well-lighted-inclosed corridor,* which will be entered from the first story staircase hall of the administration building, and extend to and terminate in a spacious loggia, located centrally between the two first, or south-west buildings. At the right and left of the loggia will be broad corridors, leading directly to the day-rooms of the said buildings. Located on one side of these corridors are thirteen rooms, seven in the southerly and six in the northerly corridor, respectively, for the visitation of patients, and apartments for ward supervisors, attendants, and other subordinate employés.

The day-rooms in the first two ward buildings will be seventy feet long, varying in width, the end sections being twenty-nine feet four inches wide. The centre section of these rooms is increased in width by the introduction of circular and octagon bays on the main façades, and by a recess on the opposite side of the rooms, making the centre section of the room thirty feet wide. These spacious day-rooms will be thoroughly lighted by windows on either side, thus providing for direct cross-ventilation. The lavatories and bath-rooms will be thirteen by thirteen feet, water-closets and clothes-rooms, each eight by thirteen feet; also two single rooms, each seven by nine feet three inches, for the temporary seclusion of patients in case of emergency. In each of the other four ward buildings, which are intended for a more disturbed class, there will be four seclusion rooms. All of these accessory rooms will be entered directly from the day-rooms, by which arrangement the patients will be under the constant observation of their attendants, this being considered essential in the case of the criminal insane. The cheerfulness of the day-rooms will be greatly aided by two deeply recessed open fire-places, one in either end of the day-rooms of the southwest buildings, and one in each day-room of the other four flank buildings. In addition to the other means of construction for ventilation, as hereinafter described, these fire-places and chimneys will be of great utility in removing the vitiated air from the wards, and will also obviate the necessity of operating the steam-heating apparatus during the greater portion of the spring and autumn months. Extending around the chimneys and the ventilating shafts there will be fire-proof stairs, with two platforms and three runs to each flight, constructed with cast-iron risers, slate treads and platform, bolted together and built into the walls at either end. At one side of each staircase, in all the wards, next to the outer wall, will be a spacious closet, with outside window, for the storage of pails, brooms, etc. These closets will be thoroughly ventilated, through brick shafts extending from the basement bottom up to and through the roofs. These fire-proof ventilating shafts will be three feet four inches by five feet eight inches, located just back of, and adjoining, the fire-places above described, and parallel to the

* Not included in Sullivan & Clark's contract.

chimneys of the same. The floors in the shaft will be constructed with perforated iron plates, to admit of the free upward movement of air from the basement and the adjoining closets.

There will be located in these shafts iron stand-pipes, two and one-half inches in diameter, and extending from the basement to the attic stories, with connections in each story for fire hose and service pipes. The construction of the parts of the building in and about the stairways and ventilating shafts will be fire-proof, insuring the utility of, and safe access to, the water-pipes and hose, in case of fire. The ventilating flues in the brick walls from the various apartments throughout the first and second stories, for which very liberal provisions have been made, will extend vertically to the attics, and there terminate collectively in metal ducts, which will connect directly with the main ventilating shafts. These shafts will be carried up vertically into the open air, high above the roofs of the buildings. The upward movement of the vitiated air will be facilitated by means of exhaust fans, located near the top of the main shafts, which together with the flues from the fire-places in the day-rooms, will, it is believed, insure perfect ventilation in all parts of the buildings. Similar construction has been provided for in the plans for the removal of the foul air from all the other buildings.

The six ward buildings above described, are planned with a view of separation of the day and night accommodations. The greater portion of the ground floors will be devoted to day-rooms and accessory accommodations for the same, attendants' rooms, etc., as heretofore described. The dormitories in the second stories will be located directly over the day-rooms, and will be of similar dimensions. There will also be in the second stories a total of ninety-four single rooms for patients and night attendants; two clothes-rooms, each twelve by twenty-two feet, and eight water-closets and bath-rooms for night use.

It has been the aim and design to construct these buildings in such manner as to insure an abundance of light and ventilation from one end to the other, so that in every room, passage, staircase and closet there shall be no "darkness at all." Thus it will be seen that while the several ward buildings are similar in the general plan of their interior, they differ sufficiently in detail to adapt them to the varied and necessary requirements of a proper classification of patients, and to avoid a monotonous appearance.

There will be a central building connecting with the east wall of the loggia, containing in the first story two associate dining-halls, one for either sex, having an aggregate seating capacity for 500 patients; a pantry twenty by twenty-six feet, and a refrigerator room, sixteen by twenty feet. There will be a chapel and amusement hall in the second story, over the men's dining-room, approached by three broad and easy fire-proof staircases, one each from the central and lateral corridors, respectively. There will also be provided in this story, four single rooms and a bath-room for subordinate employés, and a small ward which will accommodate about twenty-four patients of a quiet and convalescent class, consisting of an associate dormitory, seventeen by fifty feet; a day-room corridor, twelve by fifty-two feet, with accessory rooms adjoining, viz.: Bath-room, water-closet and clothes-room; also seven single rooms for patients; a separate day-room, twenty-four by fifty-two feet; two rooms for attendants, and a lavatory, bath-room and water-closet. By this arrangement the ward can be divided to accommodate two classes, if required.

Adjoining the east end of the central building, above referred to, will be a one-story structure, containing a kitchen forty-six by fifty-eight feet, bakery twenty-five feet six inches by forty-two feet four inches, employés' dining-room fourteen by twenty-five feet eight inches; store-room, thirteen by twenty-five feet eight inches, and bread-room, fourteen by twenty-five feet eight inches. The ceiling of the kitchen and bakery will extend upon a line with the rafters. In addition to the windows in the side wall, there will be dormers in the roof opening into the kitchen. There will also be a clere-story, with window openings for ventilation.

The last named buildings will extend in an easterly and westerly direction through the court, dividing it in two. These two courts will be subdivided by a transverse corridor connecting at a central point in the staircase hall between the two flank buildings and extending to and connecting with the dining-halls, thus completely inclosing two courts, and the other two on three sides. The location and arrangement of the airing courts, as above described, is considered necessary in view of the fact that insane criminals, as shown by experience, are much more prone to escape from custody than are the ordinary insane; hence, in order to insure their safe custody, when exercising in the open air, their surroundings require to be more secure and restricted than would be necessary, or even desirable, for the latter class.

At points in the courts midway between the flank buildings and dining-halls will be located the two isolation buildings heretofore referred to. These buildings will each contain two attendants' rooms, sixteen single rooms for patients, also lavatories and bath-rooms. The patients' rooms will be arranged on either side of a corridor, thirteen feet wide by forty feet long. The walls of the corridors will be carried up above the roofs of the single rooms, forming a clere-story, pierced with window openings. The roofs over the clere-stories will be constructed with thick, rough plate glass set in iron framework.

Easterly, and partially within the inclosure, will be located a one-story laundry building, fifty by ninety-six feet, containing a washing-room, engine-room, drying-room, ironing-room and water-closet. Outside of the inclosure, and in a southerly direction therefrom, will be located a boiler-house, a building for machine, blacksmithing and plumbing shops, also separate buildings for carpenter and repair shops, ice-house, green-house, stable and carriage-house.*

It has been the earnest effort to so design the various buildings for the new institution that they should combine the many features required to adapt them to the special purpose of the care and custody of insane criminals. The buildings will be plain; that is, expensive ornamentation will be almost entirely omitted. The hospital buildings proper are irregular in outline, massive and substantial, and so varied in design as to avoid sameness, while in part or as a whole group, they will present an imposing, varied and cheerful appearance.

The foundation walls will be constructed with native quarry building-stone, laid on concrete footings, the walls to be coped with a rock face water-table. The walls above the water-table are designed to be constructed with unpressed North River brick, and will be so constructed as to form an air space

* These buildings are not included in Sullivan & Clark's contract.

between the outer and inner walls, thus avoiding the necessity of furring on the inside. All division walls throughout the buildings will be constructed with hard-burned brick from the footing courses to the respective heights. In order to render the interior walls impervious to absorption they will be plastered with Keene cement; also the bases in all rooms will be of the same material. The outside dressings to the door and window openings, string-courses, arches to doorways, transoms, etc., will be of unwrought stone, except the washes to the door and window-sills, transoms and the beds to lintels and arch-stone.

The design of the administration building differs from that of the ward buildings sufficiently to designate its purpose and identity. Located centrally in the southwesterly façade over the main entrance, will be raised a modest, medium-height tower, from which the surrounding country can be viewed for great distances. At the northwest end of the building will be a circular bay, which is carried above the main walls a sufficient height to admit of windows opening into the attic, which, together with the windows in the third story of the tower and the dormer windows in the roof, will thoroughly light the attic. At the opposite and southerly end of the building will be a portico through which the main hall is entered. On a level with the second and attic floors, over this portico, will be spacious balconies. The walls will be carried up above the upper balcony and roofed over. Projecting beyond the portico is a *porte cochere*.

The façades of the southwesterly buildings will be modestly embellished with brick pilasters, plain terra cotta bases and molded caps, on which will rest terra cotta friezes. These buildings will stand seventy-five feet back from the administration building and parallel to the same. The cornices and gutters to all the buildings will be constructed of sheet copper supported on heavy, galvanized, wrought-iron brackets, firmly built into the walls. The framework of the roofs will be constructed of heavy timber sheeted with seasoned, tongued and grooved plank, over which will be laid heavy building paper, and the roofs covered with black slate. The hips and ridges will be finished with terra cotta hip-rolls and ridge crestings. The varied heights of the buildings, together with the irregular outlines, the high-pitched roofs, and the eight towering ventilating shafts, will form a combination harmonizing well with the surrounding scenery.

The minimum amount of wood will be used in finishing the interior. The doors and window casings in the hospital buildings are to be of southern yellow pine, finished smooth and filled and varnished. There will be no base or window casings in the hospital buildings. The windows of the six ward buildings, and in the two isolation buildings, will be provided with steel guards built into the walls. The floors of all the corridors, bath-rooms, water-closets, lavatories, kitchen, bakery and loggia will be constructed with rolled wrought iron "I" beams, brick arches, and encaustic tiling. All other floors in the ward buildings will be constructed with three-inch plank, laid on heavy timber beams, located from six to eight feet apart. Over the three-inch flooring will be laid two thicknesses of deafening paper, over which a finishing floor of hard maple, or edge-grain yellow pine will be laid. The beams will be faced with yellow pine or white oak. The spaces between the beams will be sheathed with narrow strips of yellow pine nailed tight to the three-inch flooring. By this means of construction of the floors, which will be

carried out in all parts of the hospital buildings, hollow spaces will be avoided.

The preparation of the drawings for the buildings of the new institution designed for the custody and care of insane criminals, I fully realized to be a work of great importance, and, consequently, I have given it much anxious consideration. I must gratefully acknowledge the valuable aid rendered me in the work by Dr. C. F. MacDonald, whose long experience and close attention to the care and treatment of the insane has thoroughly familiarized him with the requirements of an institution for that purpose. Should the work of constructing the buildings be conscientiously carried out in accordance with the drawings, they will be found to possess the merits of solidity, economy of maintenance and convenience of administration.

(Signed.)

I. G. PERRY,

Architect.

THE ST. LAWRENCE STATE ASYLUM FOR THE INSANE.—Since our last issue the plans of Mr. Perry for the new St. Lawrence State Asylum have been considerably modified. The total capacity of the nine cottages will now be for 300 patients. Mr. Perry has spared no effort to make the new asylum a structural success. We had hoped in this issue to be able to furnish our readers an opportunity of judging for themselves by inspection of a ground plan of the buldings. We have ourselves been thus favored, and cannot but admire the excellent taste and sound judgment displayed in the work. The following letter contains a general description of the plans as modified:

ALBANY, January 17th, 1888.

To the Board of Managers of the St. Lawrence State Asylum for Insane:

GENTLEMEN—Since the meeting of your board at Syracuse, October 27, 1887, I have prepared the drawings and specifications for the buildings for the St. Lawrence State Asylum for Insane, as directed by a resolution of your board at that time.

In preparing the drawings for the new asylum buildings, to be located near Fishkill-on-the-Hudson, it has been my good fortune to be associated with men of large experience in asylum work, namely, Dr. Stephen Smith, State Commissioner in Lunacy, and Dr. Carlos F. MacDonald, Commissioner on New Asylum for Insane Criminals. At my request, these gentlemen have taken an interest in the plans of the St. Lawrence State Asylum buildings, and have made many very valuable suggestions in regard to the arrangements, especially of the hospital buildings, and they approve of the revised plans of the central group of cottages, herewith submitted, in preference to the plans heretofore adopted by your board. The important difference in the plans as revised, and the original ones, is the reduction of the dimensions of the several hospital buildings, together with improvements of the internal arrangements.

Acting upon the advice of Drs. Smith and MacDonald, and upon my own convictions, after a careful consideration of the subject, I have taken the liberty to make a new set of drawings, reducing the dimensions of the several cottages in the central group from the ones shown by the original plans, and by careful study have greatly improved the general arrangements, as

will be readily seen on a careful examination of the revised plans, which I herewith submit for the consideration and approval of the Board of Managers.

Buildings erected in accordance with the revised drawings will consist of nine cottages for hospital purposes, the combined capacity of which would provide accommodations for 300 patients. The buildings are irregularly located on the ground, and would form equally as picturesque an appearance as if erected as originally contemplated.

The cottages nearest to the administration building are the two infirmaries, or hospital buildings. The infirmaries proper are one-story high, and the ceilings extend up on a line with the high pitched roofs. The roofs over the infirmaries proper would be constructed with clere-stories, containing windows glazed with colored glass, which, together with the windows in the walls, would thoroughly and cheerfully light the rooms. Each of the infirmaries is arranged for the accommodation of thirteen patients, and is provided with all the necessary accommodations, namely, a dormitory thirty by fifty feet, three single rooms, dining-room, two rooms for nurses, bath-rooms for patients and one for employes, and an operating room. These infirmary buildings are in close proximity to the kitchen, and communicate with the same and the administration building, through low, enclosed, fire-proof corridors. In addition to the infirmaries proper, as above described, each structure contains six rooms in the first story, one for supervisor, and five for attendants, a spacious well-lighted lobby, and a parlor for the accommodation of patients. That portion of each of these buildings, which is two stories high, is separate from the hospital proper, and contains eleven single rooms, a bath-room and water-closet, a well-lighted dormitory, a fire-proof staircase, extending from the first to the second story, and a ventilating shaft, extending from the basement to and through the roofs.

The next two cottages are of about equal dimensions, and are located about thirty feet from the infirmaries above referred to. These buildings are varied in external design and internal arrangements. The main entrances would be through spacious vestibules, located in the centre of the structures, and open into short, well-lighted, transverse and longitudinal corridors. On either side of the transverse corridors are reception rooms, two in each cottage. The longitudinal corridor connects with the single rooms on the first floor, and the parlors, which are located at either end of the buildings. In the eastern cottage, the parlors are each 24 by 60 feet, and in the western cottage, 24 by 49 feet, and 30 by 44 feet, respectively. Each parlor would be provided with a spacious open fire-place. The plans show liberal provisions for dining-rooms and pantries in the first story, and for lavatories, bath-rooms, clothes-rooms and water-closets in the first and second stories, arranged so as to secure direct cross ventilation. One cottage has five single rooms on the first floor, and the other eight. Each of these cottages have twenty-three single-rooms in the second story, and two dormitories. In addition to the window openings in the walls of each dormitory, there is a skylight glazed with colored glass.

The next, and third cottages, located in an easterly and westerly direction from the administration building, are of about equal dimensions, and are larger than the buildings last mentioned, and varied in external design and internal arrangements. The westerly cottage contains a parlor or day-room, located at either end of the building, which is lighted on four sides. Project-

ing beyond the outer walls of this building is a fire-proof staircase, extending from the first to the second story. The cheerfulness of the parlors and day-rooms would be increased by the spacious open fire-places. The lavatories, clothes-rooms, bath-rooms and water-closets are located in a separate building, which is so located beyond the limits of the main structure, and is so arranged as to secure direct cross ventilation between the main building and the lavatories and water-closets. The main entrance to this cottage is from a loggia, located in the centre of the principal elevation of the building, and opening into a lobby or day-room, 19 feet 6 inches by 45 feet. On one side of the loggia is a reception-room. The centre section contains in addition to the lobby, a reception-room and seven single rooms. Extending out from the lobby is a dining-room, 20 by 30 feet, and a pantry, 8 by 20 feet. A chimney stack is located between the lobby and the dining-room, with an open fire-place for each. There are two additional entrances, one at either end of the building, through enclosed vestibules.

The eastern cottage contains a parlor, 24 by 55 feet, located at the east end of the cottage, a day-room 23 by 47 feet, located in the centre of the building, two parlors, respectively 12 by 24 feet and 14 by 17 feet, a reception-room 10 by 12 feet, and thirteen single rooms, on the first floor. This building is also provided with two fire-proof staircases and open fire-places from the lobby, day-room, parlor and lavatory; and a bath-room, clothes-room, and water-closet. Each of these buildings contain ventilating shafts, extending from the basement floor, in which provisions are made for shoes, mops, pails, brooms, etc.

The fourth cottage on the east contains an associate dining-hall 31 by 49 feet, a day-room 31 by 36 feet, a pantry, 16 by 31 feet, two attendants' rooms, a fire-proof staircase, extending from the first to the second story, an open fire-place and ventilating shaft. The second story provides a dormitory 18 by 31 feet, fourteen single rooms, lavatory, bath-room, clothes-room, water-closet and ventilating shaft.

The two cottages, located at the extreme east and west, in this central group, are radically different in their external design and internal arrangements, as is the case with all the other cottages heretofore mentioned, except the infirmaries.

The extreme easterly cottage has a parlor at one end, 24 by 57 feet; at the other end is a day-room, 26 by 56 feet. Each of these spacious rooms would be lighted through windows on three sides, and their cheerfulness increased by large, open fire-places. The plans provide for broad, fire-proof staircases, extending from these principal rooms, and landing in well-lighted lobbies in the second story. Adjacent to the parlor and day-room are located lavatories, bath-rooms, clothes-rooms, and water-closets. The window openings are so arranged in the outer walls as to provide means for direct cross ventilation. Liberal closets for mops, pails, brooms, etc., and ventilating shafts, are located between the lavatories and large rooms above referred to. The main entrance to this cottage is through a loggia, located in the centre of the principal façade, which will open into a lobby, extending to the opposite wall; this lobby would be well lighted through windows at either end. A short longitudinal corridor extends through the centre section, and connects with the parlor and day-room, and also with a reception-room, an office, and thirteen single rooms on the first floor.

The second story contains a lobby, 24 by 44 feet, and one 26 by 36 feet, which are located respectively over the day-rooms and parlors. The second story also contains 27 single rooms, 2 lavatories, 2 bath-rooms, 2 clothes-rooms and 2 water-closets. All these accessory rooms are conveniently located. The plans provide closets for the storage of housekeeping utensils, and ventilating shafts, extending from the basement up to and through the roof, as is also the case in all the cottages. Open fire-places would be provided in each of the lobbies or dormitories.

The extreme westerly cottage is of about the same general dimensions as the one last described, and contains a sitting-room, 23 by 36 feet 6 inches, at one end of the building, and at the other end a parlor, 24 by 70 feet; these rooms are well lighted through windows on three sides. In the centre of the building is a day-room, 34 by 46 feet. Longitudinal corridors extend in either direction from the day-room to the parlor and sitting-room. The main entrance is the same as described for the easterly cottage last mentioned. The day-room and the two reception-rooms are entered from the vestibule. A parlor and seven single rooms are entered from the longitudinal hall. At the extreme westerly end is located a building containing a broad corridor and six single rooms, a lavatory, bath-room, clothes-room and water-closet. The plan also provides for the same conveniences near the central day-room, with the same arrangements for cross ventilation as heretofore described. The three large rooms are provided with open fire-places. Fire-proof staircases extend from the parlor and day-room, landing in lobbies in the second story. This building would be provided with a dining-room, 24 by 37 feet, and a pantry adjoining, 10 by 24 feet. The second story contains a dormitory, or lobby, 23 by 36 feet, and one, 19 by 37 feet, a dormitory, 24 by 52 feet. These lobbies and dormitories are intended to be lighted from the windows in the outer walls, and through skylights, glazed with colored glass. There would also be a sitting-room, 17 by 24 feet, 23 single rooms, 2 double rooms, 3 lavatories, 3 bath-rooms, clothes-rooms and water-closets, on the second floor.

The cottages in the central group, for hospital purposes, are located from 50 to 100 feet apart, are irregular in outline, arranged on the most approved congregate-segregate plan, and are connected by low, one-story, fire-proof corridors. The internal arrangement of each cottage is complete within itself for housekeeping, except accommodations for cooking and laundry purposes, which would be provided for in the general kitchen and laundry buildings for the whole group. Two of the cottages are provided with an associate dining-room, and each of the other seven with a separate dining-room. The buildings would stand free and be lighted from all sides, and the day-rooms and large parlors would be lighted from three and four sides respectively. By this arrangement there would be a free circulation of air through all the apartments, and unobstructed views of the beautiful surrounding country would be obtained. The buildings being separate, it would afford an opportunity to make the classification distinct, and yet bring the patients in the whole group within convenient reach for administration. Especial care has been taken in preparing the drawings to properly arrange the construction of the buildings for the most approved system of warming and ventilating all the apartments by a system of indirect radiation of steam heat, and ventilation through open fire-places and ventilating shafts.

Sincerely yours,

(Signed.)

I. G. PERRY.

BOOK REVIEWS AND NOTICES.

The American Journal of Psychology. Edited by G. STANLEY HALL, Professor of Psychology, Johns Hopkins University. Quarterly. Vol. I, Nos. 1 and 2. Baltimore: N. Murray.

No one knows better than the alienist the practical futility of metaphysical psychology for his purpose as a physician; it might be said that the practical alienist is his own psychologist. It is fair to say that hitherto the alienists have generally done their work in the care and treatment of the insane without psychology as a science, and on the practical basis of a "common sense" method of suiting what is called moral treatment to the exigencies of the occasion according to the light of their own experience. The debt to metaphysical psychology is a great one, for it has, by its simple method of direct observation, designated some of the facts of consciousness under certain terms and symbols that formulate primary data upon which all agree. We know, we feel, and we will and act; but, beyond certain abstractions which we call faculties, we have no scientific precision, and introspective psychology gives us little aid in our clinical work which involves us in a wide range of the complex data of anatomy, physiology and pathology. In the study of mere abstractions we have been led nowhere but into a chaos of classifications.

It may be said by the old school that the new psychology is not altogether new. It is true that from the time of the earlier psychologists reference has been made to the facts of general biology as contemporarily understood, but it was in the metaphysical spirit and such borrowed data were made the bases of new deductions that have led only to vague ^{cur} observations. The spirit of the new psychology is that of the natural method which, though indirect, has made possible all our modern sciences by the induction of elementary principles from the complex phenomena.

In the breaking away from the old order of things, the modern English school, and the Germans who were earliest moved by the same impulse, occupied middle ground between the old and the really new psychology. In less than the time of one generation have come about the real effects of the transition; while the physicists made little account of the phenomena of consciousness, and the psychologists ignored the material facts of the physical basis, the physiologists were led by their experiments to the central point of our inquiry where the physiological meets the mental. Here it was that physiological psychology employed the modern method of natural science in these researches, beginning in the well known studies of elementary sensation by Helmholtz and other physiologists. We are too near this epoch-making work to measure its magnitude. The labors of Wundt have made the new psychology the fashion in academic training, and within a very few years it has been spreading rapidly, not only in European but in American universities and colleges. To alienists it appeals with the greatest force. The ambitious aim of the academic psychologist is in the foundation and development of the new science,—pedagogy comes within its field as applied psychology; and in its inquisition into all the phenomena of life and mind, none of which it omits, it can get most valuable contributions from psychiatry. But for

the alienist its most important value is in its concrete application to his clinical needs; its method makes psycho-pathology scientific, while it applies its tests of precise analysis and measurement in what is strictly physiological psychology.

This new journal is an exponent of the application of these principles and methods to the science of mind, and its appearance marks, in America, an epoch in the history of philosophy. It is in fact, the first publication in English devoted to this purpose and representing the new psychology. The alienist is first a physician, but he must also be a psychologist of some degree of attainment, and it is accorded to the American student that he has superior freedom of investigation in these rich and newly opened fields, because he is unfettered by the traditions of metaphysics as in the older countries. Hence the advent of this journal is opportune. It is for alienists to join hands with the new psychology: its cause is ours, and its purport is, that psychology has turned aside from its speculative and *a priori* deductions, and meeting us more than half way, it enters upon an exhaustive investigation along the lines of psychiatry as one of the most inviting of its legitimate fields of inquiry in building up the science of mind.

The journal aims, according to the letter of its promise to make itself indispensable to physicians who wish to keep fully abreast of the great and increasing work now being done in European countries, in the experimental physiology of the senses and the central nervous system, the study of morbid psychoses, hypnotism and dreams, as well as the histology of the nervous system. The first two numbers show the character of the work it is intended to do. Some of the original articles already published show a high order of technical research; this is notably seen in all the articles of the first number and in Dr. Jastrow's second article in the second number. The first article, by Dr. Lombard on the variations of the normal knee-jerk, and their relation to the activity of the central nervous system, is of direct interest to the alienist and neurologist; in the uncertainty of the significance of the changes in the patellar reflex, the value is obvious of reducing all such phenomena to a standard for comparison, as the aim of all such research. The article on dermal sensitiveness to gradual pressure changes, by Dr. Hall, and Mr. Yuzero Matora, illustrates the precise laboratory methods employed by them in the study of the psycho-physic law, and with the two articles by Dr. Jastrow on the same general subject they are strictly technical. But while they are of less immediate interest to the alienist the latter articles reveal in their criticism of the inaccurate methods of employing one of the most fundamental postulates of the experimental school, a strenuous loyalty to exactness of research that stamps the work of the journal with the mark of its high quality.

The same quality of conservatism and fairness of statement characterizes the excellent article by Dr. Donaldson, in the second number, treating of the relation of recent researches in neurology to psychology. He points specifically to the present limitations of investigation, and to the inquiry as to what aid psychology is to expect from neurology in ultimate analysis, and whether it will ever come to pass that from the morphological characteristics of the cell its function can be inferred. He indicates why it is that accurate neural anatomy must go hand in hand with accurate psychological analysis; and he says with a significance that appeals to the alienist, that "most of the

detailed studies in this direction have come from the psychiatrists—men who have engrossing calls on their time, and whose anatomical work must therefore suffer from discontinuity.” This article is of great interest to the alienist, as summarizing in terse and clear statements certain recent advances in neurology, and indicating their significance for psychology.

Immediately in the field of psychiatry is the article in the second number, by Dr. Cowles, on insistent and fixed or imperative ideas and conceptions. This article is chiefly a careful and detailed analysis of a single case, and its purport is a study in psycho-pathology. By way of justification for so much detail, a number of writers are quoted, and among them Sir J. Crichton Browne, on the importance, and the general neglect, of the study of morbid mental states, by the proper analysis of the expressions and products of the diseased mind. The term “insistent” is used to designate the large proportion of cases in which the ideas are sometimes or commonly resisted, and when their control is of less degrees than fixed and imperative. It is held that many cases occur upon so normal a basis as not to warrant a diagnosis of either simple neurasthenia or paranoia; and incidentally a protest is entered against the spoiling of so excellent a term as “paranoia,” by extending its use as widely as that of “monomania,” which it is designed to supplant.

Much space is given to reviews of psychological literature classified as—experimental psychology, histology of the nervous system, abnormal psychology and miscellaneous. These are careful digests of important books and articles widely scattered in medical and other journals in various languages; they give a very complete survey of this field of literature and are invaluable to one who would keep abreast of his time in this subject. There is also a section of notes on subjects:—educational, experimental, and abnormal. An obvious characteristic that distinguishes all the work under review is its sincerity. At some points it may even be styled scientific skepticism—meaning a skepticism of science criticising its own methods, thus emphasizing perhaps its aim at a safe conservatism; but it is in no wise materialistic—that seems farthest from the inclination of the spirit that animates this work; and there need be no survival in any quarter of the fear of such an objectionable spirit in this special development of a newer branch of science that touches the traditions of the ancient schools.

The leading position of Professor Hall, in this country, in this school of psychology, and of its work as he has developed it at the Johns Hopkins University, at once gives the new *Journal of Psychology* a high standing; and this rests upon a substantial foundation of Dr. Hall's own training in these studies during a number of years in Germany, not only in the laboratories of leading physiologists, but under some of the best representatives of German psychiatry. His relation, and that of his department of psychology in the University, to the Bayview asylum for the insane were mentioned in the last number of the JOURNAL OF INSANITY. This arrangement, re-enforced by clinical advantages of the Maryland Hospital courteously given by Dr. Gundry, illustrates the practical alliance of psychiatry and psychology, which is already expressed in these early numbers of Dr. Hall's new journal. American alienists cannot fail to welcome it, and to see their own interest in uniting in this movement.

E. C.

The Vermont Asylum for the Insane: Its Annals for Fifty Years. Brattleboro: 1887.

Few of our institutions have a better title to a jubilee commemoration than the venerable asylum at Brattleboro, founded by the will of a benevolent widow in 1834, and opened for patients in 1836 when there were but ten such institutions in the United States and only three in New England. The annual reports of our old asylums soon become scarce and out of print, and Dr. Draper has conferred a public benefit by the example he has here set of digesting the early records of institutional work into a neat volume that will be gladly welcomed into our professional libraries. There is something very quaint and exceedingly interesting in these early histories, including the modest will of the benevolent but determined lady founder, who knew that such a nucleus, unpretentious as it was, must necessarily make many accretions. This is finely illustrated by the plate giving a "block plan" showing the chronological succession of the various structures. Besides this, there are nine other illustrations giving various views of the institution at successive stages of its history, all of which wear a very attractive and home-like appearance.

There may be some advantages in starting a great foundation from small beginnings, as an incorporated body with a few trustees, and developing slowly but surely with the benefits of experience and the growth of society. The history of this asylum certainly exhibits most judicious expenditure of resources and large results in proportion. The table giving the "Construction Record" is very interesting and suggestive, and well worth the study of our financial authorities.

The book is distributed into abridgments of the records of each year by itself, with a summary of the medical and financial records and memorials of the successive superintendents and trustees. We could wish even a fuller biographical account of the eminent Dr. Rockwell, identified with this institution from its foundation down to the year 1873. It might have been well to incorporate in this volume that read before the State Medical Society in 1874.

This asylum began with 34 patients; the total remaining in 1886 was 450. The highest pauper rate (since 1884) has been \$3.75; the average rate paid for the 50 years \$2.30. The excess of receipts over what would have been derived from public support of the whole has been \$604,701. The property valuation of the asylum, from cost of estate and buildings with appurtenances is \$439,880. The total expenditure for 50 years is \$2,911,191.20.

—From J. B. Lippincott & Co., Philadelphia, we have received a goodly sized volume of the *Proceedings of the Association of Medical Officers of American Institutions for Idiots and Feeble-Minded Persons*, with various Papers, Memorials and Reports connected with this subject, from all parts of the country, beginning with the year 1876, when the association was formed, down to the year 1886. In Europe this department of medical science and treatment is generally integrated with that of insanity: but here, as a congenital disorder, it properly forms a department by itself. The literature of this subject, somewhat scanty at best, is considerably enriched by the papers in this volume, which will be welcome to all who desire information on this obscure and difficult branch of psychology. Intemperance is doubtless a

great factor here as in insanity, but statistics show that very much is due to female overwork and exhaustion in the ambitious and too frugal family life of our early American civilization. It becomes a serious question too, how far a sumptuary legislation, which for public reasons, must direct its eye to the personal habits and appetites of the population, has also some right to supervise and restrict the present practice of indiscriminate marriage, by some system of "licenses," that may check the formation of unions that can only entail pauperism and imbecility for public support.

We are very glad to see in this volume full justice done to the memory of the late Edouard Séguin, the great French pioneer in this branch of science and philanthropy combined, and also of the late Dr. H. B. Wilbur, the persevering and enthusiastic benefactor whose labors have contributed more perhaps than those of any other man to bring our legislation on this question up to its proper status, and who for so many years illustrated what may be accomplished in this line by his administration at the Idiot Asylum [at Syracuse, N. Y., the first, we believe, of its class in the Union. At present, as we find from this volume, there are large and well-appointed institutions of the same character in Pennsylvania, Ohio, Indiana, Illinois, Kentucky, Iowa, Kansas, Nebraska, California, Minnesota and Massachusetts, besides several private institutions in other States.

—The "*Annals of Surgery*," the only journal published in the English language devoted exclusively to surgery, has just entered upon its fourth year. Drs. L. S. Pilcher, of Brooklyn, N. Y., and C. B. Keetley, of London, England, are the chief editors. They are assisted by able surgeons of this country as well as Europe. We bespeak for it the coöperation of members of the profession, who are interested in progressive surgery. J. H. Chambers & Co., St. Louis, Mo., are the publishers.

FOREIGN CORRESPONDENCE.

THE INSANE IN SCOTLAND.—The number of insane reported to the Commissioners of Lunacy for Scotland on the first of January, 1887, was 11,309. Of these 1,739 were private or pay patients, and 9,570 supported by the public. During the year 1886 there were 2,440 cases of insanity developed throughout the kingdom; 1,138 persons were discharged as recovered, and 675 deaths occurred; 228 escapes from establishments took place during the year, and 15 fatal accidents occurred in all the institutions, of which 6 were suicides:—6,326 patients were accommodated in the Royal and District asylums, 128 in private asylums, 1,444 in Parochial asylums, and 857 in the lunatic wards of poor-houses. During the year 101 patients were discharged on probation. This includes only those cases in which the period of probation was of more than four weeks' duration. The commissioners, in their report, say that "the special use of such statutory provisions for discharge on probation is to permit the conditional liberation of patients whose fitness for permanent discharge cannot be determined without actual discharge. It is frequently found that patients who appear while in the asylum to have improved so much that they are fit for being provided for in private dwellings, become unsettled when the restraints of the asylum are removed. It is not, however, justifiable to retain permanently in the asylum all patients in whose cases a possibility of such unsettlement is thought to exist." This is an apt statement of a fact that I have been urging upon the attention of the legislative authorities in Ohio for several years past. The actual test of citizenship is sometimes the only conclusive evidence of the recovery of mental health, and in such cases discharge as recovery should not be made until such test is given.

Since 1862 there have been 2,982 patients discharged on probation in Scotland, and of these 530 were replaced in asylums. This shows, as the commissioners state, that "the large majority of patients discharged on probation undergo no deterioration."

On January first, 1887, there were in Scotland 2,140 pauper patients who were provided for in private families. These are all certified as being harmless to themselves or others, and probably incurable before they are sent out. Under the supervision of one inspector, however, Dr. Sibbold, among 1,177 patients so provided

for, 26 recoveries are said to have taken place during 1886. Besides this general inspector, who acts as agent for the commissioners, and whose duty it is to visit each patient at least once a year, there is a local guardian who looks after the physical comfort of the patient, and a local physician who is appointed to attend to his medical wants. The inspectors report no objection on the part of the public to the presence of these patients among them, and say that in many cases the change is beneficial to the patients.

There are in Scotland seven Royal asylums, located at Aberdeen, Dumfries, Dundee, Edinburgh, Glasgow, Montrose and Perth. There are also twelve district asylums, five private asylums, six parochial asylums, and sixteen poor-houses with lunatic wards. Only patients who are regarded as harmless and incurable are kept in poor-house establishments.

The average annual cost of maintenance of pauper patients in all kinds of establishments is \$112.84. The rate at which pauper patients are received by Royal asylums varies from \$125 to \$167.50 per annum. In district asylums the rate is from \$100 to \$145 per annum; in parochial asylums from \$118.35 to \$133.25; and in lunatic wards of poor-houses from \$78 to \$131.08 per annum.

My personal observation of the care of the insane in Scotland comprises a visit during the summer of 1887, to the following institutions: The Royal Glasgow Asylum, Dr. Yellowlees, Superintendent; the Barony Parochial Asylum at Lenzie, near Glasgow, Dr. Blair, Superintendent; the Glasgow District Asylum, Bothwell, Dr. Campbell Clark, Superintendent; the Inverness District Asylum, Dr. Aitken, Superintendent; the Royal Edinburgh Asylum, Dr. Clouston, Superintendent; the Ayr District Asylum, Dr. Skae, Superintendent; and the Crichton Royal Institute, Dumfries, Dr. Rutherford, Superintendent. I was everywhere cordially received and most hospitably entertained.

It is a pleasure to turn from a review of the condition of the insane in Ireland, where poverty and indifference affect so seriously their welfare, to a country whose philanthropy and public spirit have contributed so much to make comfortable this unhappy class. Why this contrast should exist is not altogether clear. The Irish as a class are generous and self-sacrificing, and we would naturally expect to find their dependent and helpless fellows well provided for, while the "canny Scotchman" might be thought to be so much engrossed in matters of self-interest as to overlook the condition and wants of his weaker brother.

Early in the history of the humane treatment of the insane, however, Scotland was blessed with a few public-spirited citizens of wealth, who freely gave of their bounty for the assistance of Scotland's insane, and in so doing planted the germs of Christian charity in this field, which have since been productive of a magnificent harvest. There is no country to-day that can point with more satisfaction to its efforts for the care of its insane than Scotland.

The Royal Asylums which had their origin in the benevolence of Scotland's citizens were powerful educators of public sentiment. They represent to-day the best and safest method of providing institution treatment for the financially independent class of the insane, and their efficient work and the comfortable condition of their inmates have stimulated a commendable zeal in other institutions, and educated the public to such a scale of provision as put the institutions of Scotland in the very front rank of the civilized world. I do not mean by this that great wealth is lavished on their institutions for in this respect America cannot be equalled for extravagance in architecture and in furniture. In dietary also our own country is more generous than any other of which I have knowledge. I believe, however, that in Scotland can be found more careful adaptation of architectural plan to the special needs of the insane, and probably as intelligent application of curative measures as can be found in any other country. Their institutions have a commendable variety in plan and they are fortunate in not being greatly dominated by any one idea, and taken as a whole their superintendents are men of broad and liberal views and progressive on lines of generous width. It is unnecessary to speak of individuals for the names of many are well known throughout this country. To Drs. Yellowlees and Clouston, in particular, I am indebted for instructive conversations on the care and condition of the insane in Scotland and for kindly personal attentions.

One of the most modern institutions that I saw was that at Lenzie. The plan seems particularly well adapted to the care of the class of patients kept there. To my mind it has advantages over either the Kirkbride or the segregate plan as thus far developed in this country. It gives abundant light and ventilation, sufficient isolation of separate divisions, and is yet so connected in all parts as to admit of ready access and great convenience in supervision. I was much impressed with the air of comfort and the amount of freedom under intelligent supervision which is allowed by Dr. Blair, combined as it is with varied and regular employment.

My observations did not impress me favorably on the question of "open doors" as the system was practiced in the institutions I visited. But two, if I correctly remember, those at Lenzie and Dumfries, made the system any especial feature. Where the doors were left unlocked the patients were either out of the ward under charge of attendants, or were not allowed to leave the ward when inside, the attendants keeping the door constantly in view. It has been a result of my experience with the American insane that they do not so much appreciate the mere fact of an unlocked door or a window without bars or screens, as they do the privilege of freedom of action which is the result of confidence in their promises. The display of this confidence by those in charge is the real factor in such measures that conduces to a return of self-control and mental health. As practiced at Dumfries the "Open Door System" is a simple mockery, as it were, "a delusion and a snare." Unlocked doors should mean what they indicate, viz.: that liberty is given to the occupants of the ward to come and go on their individual responsibility, controlled only by the same restraining influences that guide and protect the sane, and which by these means, in carefully selected cases among the insane, we strive to strengthen and develop. As such I am heartily in accord with the open door system and have for years availed myself of its benefits.

As to the "boarding out" of pauper patients in private families as practiced in Scotland, about which so much has been said within the past few years, and of which the results seem yet in dispute, I was led from my conversations with Dr. Clouston to believe that in the majority of cases it had been found of advantage, and a useful adjunct to the other means of providing for the insane. As Dr. Clouston well says, however, three things are requisite to success; a careful selection of patients, a proper discrimination in choosing families and a thorough local supervision of the patients' subsequent care. A failure in either of these essentials will result in defeat of the object. It is a further necessity that there should be a stable population of thrifty and reliable tradespeople and farmers who are in such circumstances as to cause them to take an interest in the work for the compensation afforded. I hardly think these conditions could be fulfilled at present in this country, unless it should be in some of the older New England States, and then I believe that financially at least the plan would offer no advantages over institution care.

With this brief review of some of the principal features of Scotch asylum management, I append a synopsis of the notes taken

at the time of my visit to each institution, with the hope that they may contain something of interest to some of the readers of the *JOURNAL*. I can only say in closing that my visits though exceedingly hurried, were most pleasant and instructive, and I find myself recurring to them with added interest as time goes on.

GLASGOW, June 28, 1887.

Visited the Glasgow Royal Asylum, Gartnavel—found Dr. Yellowlees at home and spent the afternoon and evening in his institution. Number of patients, 475. Number of officers, attendants and servants, 127. The institution is supported entirely by fees from patients, except in the lowest rates, where the different unions or counties pay for the patients. The rates vary from \$3 or \$3.50 to \$31.50 per week. The general plan of the building is the old linear style—single-rooms on the one side of a wide corridor in one section, and day-rooms in the lower story and dormitories in the upper story, in the other section, the building being two stories high and consisting of two sections on each side of a central building. The building was opened forty-six years ago. The day-rooms in the first section are handsomely furnished and very comfortable. Many of the bedsteads are iron with wire and hair mattresses and look quite neat. Some old style wooden box beds are still in use for feeble patients. The higher rate patients are kept entirely separate from the lower rate and pauper patients. They have ward dining-rooms and a much larger proportion of single bedrooms. This class comprises about twenty-five per cent of the whole number. The pauper and low rate patients eat in a general dining-room and have large associated dormitories and day-rooms. There has been but little seclusion, and no restraint, for many years, though Dr. Yellowlees believes in the use of both if thought necessary. The single bedrooms are large and airy and the whole institution comfortably furnished and thoroughly well kept. The patients are out of doors the greater part of the time and many are employed in various departments about the institution.

In the higher rate division there are 40 attendants to 125 patients, and in the other division 39 attendants to 350 patients. The proportion of patients employed in the latter division is 227 out of 350. But few patients are allowed out alone about the grounds. Escapes are infrequent. There were no suicides nor other fatal accidents last year. There are several pay patients who have attendants who sleep in the rooms with them, and the suicidal and unclean classes have special night watches. Autopsies are held as frequently as opportunity offers, but no large amount of original pathological work is attempted. Airing courts are used for the more disturbed class of both sexes and one is provided for each class, separately, the higher rate and pauper. They are beautifully laid off with walks and flowers and well kept. The more quiet classes go out about the grounds under charge of attendants.

The windows are not protected by iron guards and the sash are wooden, but they do not admit of being raised or lowered more than five or six inches. But little narcotic medicine is given, a combination of chloral and bromide of potash, twenty grains to forty, being the favorite. Hyosciamine and hyoscin are not used at all.

JUNE 29th.

Visited the Barony Parochial Asylum at Lenzie to-day. Dr. Blair showed me about with cordiality, and I found it a model institution. The asylum is for the pauper classes and no private patients are admitted. The institution has been opened about twelve years. The building is two stories high and the general plan is three divisions on each side in which are the central offices, physician's residence, etc. The superintendent resides in a building on the asylum grounds separate from the institution. The lower story is connected throughout by a passage-way or corridor from which side corridors lead to the different sections. There is a general bath-room for all of each sex, except the hospital patients, which is located in the rear of this passage-way about the middle of each side. The lower story consists almost entirely of day-rooms, which are light and airy, having windows on three sides, and also a few single rooms. Some of the day-rooms have been converted into dormitories as they were found to be larger than required. The dormitories proper are in the upper story and correspond to the day-rooms below. There are 541 patients in the institution.

The general dining-hall for both sexes is in the rear of the administration building, and the passage-way mentioned connects with it on each side. About five hundred patients eat in it, eight at a table. The attendants eat at a row of tables through the center of the room after the patients have finished and while they wait at their tables. Above the dining-hall is the amusement room. In the rear of the dining-hall, and having two corridors leading to it from the passage-way on each side, is the chapel. The corridors are enclosed with glass and are fitted as conservatories, looking beautiful with flowering plants. The chapel will accommodate more than five hundred and is filled every Sunday.

There are 68 single rooms on the male side to 276 patients, and 68 on the female side to 267 patients. About fifty patients have been lately sent out from the institution and places secured for them in private families in the adjoining counties; forty-four males and twelve females are provided for in cottages on the asylum grounds; twenty-six males and two females are accommodated in a block of buildings lately erected for stables, carriage-houses, etc. The building is in the shape of a hollow square, or rectangle rather, and the front end is fitted up for the patients, the sides and rear being for the cows, horses, carriages, farm implements, etc. The whole is under charge of a man and wife, and the two female patients assist in taking care of the rooms and in the cooking, while the men are selected for work on the farm. The rooms for the patients were well arranged and seemed very comfortable; 209 men out of 276 are at work to-day. The report gives the average number working as 210 men out of 261, and 232 women out of 271. This is certainly an excellent showing. Restraint is not used and seclusion but seldom. The seclusion day is from 10 A. M. to 5 P. M. The per capita cost is eight shillings ten pence per week. There is a farm of more than 400 acres attached to the institution.

I found nearly all the doors on the male side open and but few patients indoors, nearly all being out at work. On the female side the doors were either locked or the patients were out on the lawns under charge of attendants. The grounds are not enclosed with a wall of any kind, as they were at Gartnavel, and are not otherwise protected from the escape of

patients. There are no padded rooms. The windows have no guards and the sashes are wooden, but they do not admit of being opened more than six inches. Carpets, rockers, sofas, etc., are used throughout the building, and the walls are tastefully decorated in stencil, the dining-room and chapel being especially beautiful. There are but two night attendants on the male side and one on the female.

Visited the asylum at Bothwell, near Glasgow, the same day, but found Dr. Clarke absent. There are 190 patients, 140 of whom eat in a common dining-hall, the two sexes sitting at the same table, being seated alternately. There are twenty-two single rooms. The building is two stories high, day-rooms below and dormitories and hospital patients above. One attendant watches between two large dormitories and two sleep in each room besides. Suicidal patients are placed as near the attendants as possible. The windows have no guards and many of them are of large plate-glass, the sash being wooden. The institution is much crowded and thirty patients are provided for in a building about twelve miles distant, which is placed under a man and wife, and visited by the superintendent once a week. No restraint is used, and but little seclusion. One man had been in seclusion for the past few weeks. But little narcotic remedies are used and hyosciamine seldom, if ever. A swimming bath, thirty-one feet long by seven feet six inches wide and from four to six feet deep, is provided in a neat little house in the rear, but has not been used much for a year past on account of the scarcity of water.

JULY 2d.

Visited the Inverness District Asylum at Inverness. The institution is beautifully located on an elevation overlooking the valley of the river Ness, with the city and castle of Inverness, and the battle-field of Cullodan concealed by a heavy woods in the distance. It contains about 435 patients, but has a capacity of 500. It is two stories high, with day-rooms and single sleeping rooms below and associated dormitories above. The day-rooms were quite airy, well lighted and cheerful, and the dormitories clean and well aired. The patients were nearly all out of doors under charge of attendants about the grounds, but the superintendent kindly brought them in for my observation. I saw here the most marked individuals of the pure Celtic race that I saw in all Scotland. They have a marked physiognomy. The men have dark brown hair and sandy whiskers, a stolid look, and are rather uninteresting as a class. The women are rather more cheerful, and I saw a few cases of quite violent excitement. The characteristic cranium is long and flattened laterally, with marked contraction laterally in the frontal region. No restraint is used and but little seclusion. There are no airing courts and the windows are not protected by guards, but do not open more than four or five inches. The sashes are wooden. The single rooms for patients number about eighty, and are made with a shutter for the window which can be locked in case of necessity. An attendant sleeps in each associated dormitory. One night watch on each side only is employed. There is a general dining-hall, and three hundred and seventy-two patients out of 435 dined in it the day I was there. About seventy acres of land are cultivated and patients are employed at all kinds of work about the institution, but I did not get the exact number. The washing is all done by hand—and feet, for I saw the Highland style of washing done here by tramping with the feet. Two female patients were

tramping the clothes in a tub. The number of attendants to patients is one to 12. Suicidal patients are placed as near as possible to the attendant, who sleeps in the same dormitory. Epileptic patients are kept to themselves to a large extent but have no special night attendant.

JULY 4th.

Visited the Morningside Royal Asylum, Edinburgh, and spent a most enjoyable day and evening with Dr. Clouston. There are about 800 patients divided into two classes—the pay patients who pay from eighty to two hundred pounds a year and who occupy the East House, and the lower rate patients who pay about forty-five pounds a year with the pauper patients who are paid for by the parish, at the rate of thirty-three pounds a year, and who together occupy the West House. The former number about 120. The East House has been built in part for one hundred years, and is on the old plan of corridor and side rooms, but many additions and alterations have been made in more modern style, and throughout the whole building it is most comfortably furnished and tastefully decorated. Every possible means of amusement is provided. The divisions accommodate from eight to twelve patients or more. There are two dining-rooms for each sex—one for those who pay a higher rate and one for the lower rate patients. No patient has a private dining-room unless his mental condition requires it. The windows have no guards and are arranged in the usual way. A few of the single rooms occupied by disturbed patients have a shutter for the window. In all the large dormitories in either house nurses sleep with the patients. In a few rooms in the East House, specially prepared for disturbed patients, the walls are padded, the window has a shutter, the room is heated by hot air through a screen below on one side of the room, and lighted by a gas-light in the ceiling protected by a screen, which also serves to produce proper ventilation. There is no restraint except in rare cases for surgical purposes. Seclusion is seldom resorted to. Out-door exercise is general and the patients are kept out nearly all day when the weather is favorable. Narcotics are not used extensively—at present in but one case—among the 120 patients in the East House. Paraldehyde seems to be just now the favorite. A number of the quiet and harmless patients are boarded out in the adjoining parishes among the better class of mechanics and farmers. The work in the East House is done altogether by paid help, but a few patients from the West House are brought over to assist in keeping the grounds in order. A few of the gentlemen assist at the work in the fields, but little work is done by the patients in the East House. The West House is in the shape of a letter T, with a cross line at each end H, and is two stories high. It is of more modern construction and is also quite comfortably furnished and tastefully decorated, but not so expensively as the East House. There is a fine, large dining-hall, seating about 420 patients, eighty of whom, who pay a higher rate, eat in a part of the room separated by a partition from the rest. There is a general bath-room where all able-bodied patients bathe. There is special provision for hospital and feeble patients, and a separate dining-room for some of the more demented and unclean class, and another for a few of the pay patients of the higher rate who are not strong enough to go to the large hall. Suicidal patients have a special night attendant. There is a receiving division to which all patients go when first admitted, and in which they are kept for the first few days,

unless too violent, and where there is a night watch whose duty it is to observe the patients' habits as to sleep. Adjoining and opening into this large dormitory are a half dozen single rooms in which restless patients may be placed. The night watch is not permitted to leave this dormitory for a moment.

The unclean patients have no special night watch, but the general watch is required to get up this class and to make a report each morning of the number of changes and the number of soiled beds.

It is needless to say that the institution is well kept and stained glass and verandas abound, while the walls are neatly decorated with painting and stenciling.

JULY 7th.

Visited the Ayr District Asylum—300 patients. It is situated three miles from the town of Ayr in the midst of a fine farming country but on quite a level site. There are 106 acres of land belonging to the institution. It is supported entirely by the rate payers, no pay patients being received. There are about thirty patients boarded out in private families in the surrounding country. The rate paid is seven shillings per week, clothing not included. The sewerage is utilized by pumping it over the garden and meadow.

The building is of stone and two stories in height; day-rooms and single sleeping-rooms below and associated dormitories above. There are two wings on each side of a central building, each side arranged in the shape of a T. There are sixty single rooms for the use of patients. There are twenty-two attendants proper. There are no window-screens, but the glass is in iron sashes in the refractory wards. One sash opens sideways on a pivot, for ventilation, to the extent of four or five inches. Epileptic patients sleep in the dormitory where the general night watch stays between rounds. Suicidal patients are placed in a dormitory where one or more nurses sleep. Some dormitories have no nurses sleeping in them, but in a room adjoining, with wicket opening into it. Some single rooms have shutters for windows; others have none. There is one padded room on each side. There is no restraint except in surgical cases, and seclusion averages less than one patient one-half the time. Eleven male patients are allowed parole privilege about the grounds.

Two hundred and ten patients are usefully employed. There is a general dining-hall in which about three-fourths of the patients dine. Airing-courts are not used, but patients are given out-door exercise every day. Paraldehyde and morphia are the narcotics chiefly used. They average three or four doses per day. There are bowling green, bowling alley, amusement hall, chapel, etc., for the use of patients. Autopsies number eight or ten a year. I was much pleased with the neatness and good order everywhere seen. The patients were quiet and well-behaved, and I saw no seclusion nor restraint in use.

JULY 7th.

Visited the Crichton Royal Institute, Dumfries. Dr. Rutherford was busy, and I did not see him. Was shown the building by an assistant and the matron. There are two blocks of buildings three stories high—one for the higher class of pay patients—from forty-five to four hundred pounds per year, and the other for the lower class of pay patients, thirty to forty-five pounds per year, and for pauper patients. A good many patients whose friends are unable to pay for their support in full are maintained partly from the original

trust fund by Dr. Crichton, on which the institution was founded. The pauper insane of three counties are kept here.

There are about 170 patients in the higher house and 200 in the lower. About 100 patients are at present boarded out in the adjoining country. There are three night watches in each building. The epileptics are placed in dormitories where the general night watch stays between his rounds. The windows have no guards and the sashes are wooden and open in the usual way four or five inches. The doors of all the wards are left open during the day, but all patients are either about the grounds under charge of attendants, or if too disturbed are sent to the infirmary ward during the day, where attendants are on duty all the time to see that they do not leave the room. When the patients are indoors the attendants are expected to be always in sight of the door and to permit no patient to leave the ward. The whole grounds are enclosed by a high stone wall which it is not supposed that patients can surmount. There are a large number of single rooms in the higher house and a smaller number in the lower. Some of the former are handsomely furnished and decorated, but the latter are bare and rather cheerless. Seclusion is not much used—none just now. Restraint is seldom required. I saw a young boy, said to be a paretic, who was tied in a chair by a cloth tied across the front of it. There are no padded rooms. The attendants proper for both houses combined number about one to fourteen. About thirty male patients are allowed beyond the ground at their pleasure—no females, I believe. Narcotics are used to a limited extent. Paraldehyde is just now the favorite. Hyoscin is also used a little of late. About fifteen autopsies are made annually. The grounds are beautifully laid out and handsomely kept. Linoleum is used in the corridors, which was not very cheerful in effect. The lower house is undergoing extensive repair and enlargement, which will add much to its cheerfulness and modern appearance.

Athens, O., March, 1888.

A. B. RICHARDSON.

BRITISH CORRESPONDENCE.

During the past year there has been some commotion among physicians in English asylums with regard to the pensions question. The agitation arose in the first place by the action of several Boards of Guardians throughout the country refusing to sanction the amount of the retiring allowance granted by committees of visitors to their respective superintendents. The various boards have argued that the system of awarding pensions is wrong altogether, and that—having in view the present depressed condition of agricultural affairs in the country—it would be injudicious, burdening ratepayers with what they consider are quite unnecessary grants to the retiring officers of their asylums. There is no doubt that to a certain extent the boards are right, but they appear to forget the harassing duties and enormous nervous strain asylum medical officers have to undergo in the discharge of their duties, and, as a result of this continuous tear and wear, the frequency with which they break down both mentally and physically. They likewise fail to recognize that asylum appointments are not like general practices, and are of no marketable value to the out-going incumbent. Dr. Needham, in his presidential address to the Medico-Psychological Association last year, touched on the subject of pensions, and urged that the “Pensions Committee” of the association should put forth all their energies to protect the rights of asylum superintendents in this matter; and, in the event of a new lunacy bill being introduced in Parliament, all their forces should be focussed in opposition to any clause which will provide for the handing over of the county asylums to the tender mercies (*sic*) of the county boards. At the present time the management of county asylums is in the hands of committees consisting for the most part of county gentlemen who, from being brought continually in contact with their medical officers, are best able to appreciate their services, but should the management be transferred to county boards, as it may be in the near future, we fear pensions will soon become a thing of the past. In the *Journal of Mental Science* for January, Dr. Williams, late of Hayward’s Heath Asylum, contributes an excellent table in which he gives the length of service and amounts of pensions awarded to medical superintendents, on their retirement, in English asylums during the past thirty-six years, from which we gather that the average length of service was twenty-two years, and the average amount of pension

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granted nearly £500 per annum. The amount and length of service differs so much in the different cases that we think in any future lunacy bill asylum physicians throughout the country should be placed more on an equal footing in this matter. There is no reason why the question should not be satisfactorily solved by extending the methods adopted in the various public services to apply to asylum physicians, and granting a definite amount commensurate with their incomes and length of service. It is to be hoped the pensions committee of the Medico-Psychological Association will do all in their power to bring this unsatisfactory state of affairs to a satisfactory termination. To those asylum physicians who do not live in a felicitous state, the result of hoping for a pension, some provident scheme is indicated, and Dr. Campbell Clark has written a most ingenious article in which he advocates a scheme similar to that in use among railway employés, which he specially applies to asylum attendants, but it could easily be made to apply as well to the medical staff of asylums. His plan may be compared to the methods adopted by assurance companies, and, if in the near future pensions are to be done away with altogether we think that some such scheme is worthy of the most careful consideration of all those engaged in asylum practice.

Dr. Saunders has been appointed Medical Superintendent of Hayward's Heath Asylum, rendered vacant by the resignation of Dr. Williams. By a strange rule of the asylum that all candidates not possessed of certain qualifications were ineligible for the appointment, most of the best assistants in the county were passed over, and the appointment, worth £600 per annum has been given to a gentleman, the fortunate possessor of the necessary qualifications, but without any practical experience either of the treatment of the insane or in the management of a large institution. Possessing the influence of one of the Chancery Visitors in Lunacy, (who had been formerly superintendent of the asylum), and supplied with recommendations from him, he has thus been successful in obtaining the appointment to the exclusion of many candidates who have spent the best portion of their lives in asylum practice, to the end that they might obtain such promotion as has thus been snatched out of their grasp. That appointments of this nature should be given by influence altogether apart from merit, is a disgrace to the present state of affairs, and we are pleased to observe that it has already created a correspondence in the *British Medical Journal*. It is to be hoped the Committee of Hayward's Heath Asylum may now have cause to regret their hazardous

experiment in their selection of an inexperienced medical man to be their superintendent.

Dr. R. B. Mitchell, Senior Assistant Physician, Royal Edinburgh Asylum, has been appointed Medical Superintendent of Rosewell Asylum, *vice* Dr. R. W. D. Cameron, resigned. Rosewell
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The question of escapes, open doors, &c., appears again to be agitating the lay mind. I cull the following from a Carlisle paper: Open d
again

The report for 1887 of the Glasgow Royal Asylum deserves notice on account mainly of some sensible remarks made by its medical superintendent, Dr. Yellowlees, whose extended experience, both in England and Scotland, along with other desired qualities, makes him fully looked up to as one of the foremost authorities in all that has to do with insanity and its treatment. He says:

“The institution is an hospital for the treatment of disease, and ought never to become merely or mainly a home for the silly and eccentric. * * * The utmost liberty consistent with the benefit of the patients is gladly allowed, but proper restrictions are not relaxed for the sake of unwise indulgence. The lines of restriction are as wide as welfare permits; but such lines are needful, and afford invaluable support when judgment and self-control are weakened. As the asylum is intended for the care of insane folk, there is no pretence of keeping open doors, and no affectation of unreal liberty. Escapes, or struggles for escape, are regarded as undesirable, and the walls of the airing grounds have not been pulled down. The wise and skilful use of seclusion and of sedatives is found to be beneficial, and is therefore deemed incumbent. The welfare of the individual patient is regarded as the paramount indication for treatment, and it is not sacrificed by blind or bigoted adherence to any so-called ‘system.’ These principles of treatment are here reiterated, for other views have been bringing reproach on Scotch asylums, and have acquired a notoriety explained only by their novelty. The asylum treatment of the insane is not an empty name, and the true asylum physician can never degenerate into something like a benevolent hotelkeeper.”

I would commend a perusal of this report to the members of the Scotch Lunacy Board, especially to those of them who have attained to their office without opportunities of gaining practical knowledge of insanity as a disease. It would be interesting to know how many insane have fallen victims to the open door craze, or the shooting folly. There is no public inquiry as to deaths the results of suicide or accident in Scotland, as in England. In the Scotch Lunacy Blue Book deaths from suicides and accidents are returned together, and but meagre details of such occurrences are often entered in the official returns of some asylums. The Glasgow report shows good results on all sides, and is a year's tale of good work well done and well told.

The gentleman who writes for the “Carlisle Patriot” exhibits a great deal of good common sense, but will be regarded by many as too conservative and repressive. He has evidently no Scotch ancestry or patriotism to boast of, and it is well that the Scotch Commissioners and one or two particular friends among the Scotch superintendents can grin and bear his sallies with proverbial Scotch philosophy.

EDITORIAL NOTES AND COMMENTS.

THE STATE CHARITIES AID ASSOCIATION'S BILL.—The bill we print on another page, generally known as the "Curtis Bill," now pending before the Legislature, was prepared under the auspices of the State Charities Aid Association of New York, as its name implies a voluntary society of ladies and gentlemen who render gratuitous services in promoting reforms and improvements in the charitable system of the State. It will be seen that this bill has for its primary object the removal of all insane persons from the care or custody or treatment of any institution under county management and support, to the State asylums, where it proposes to keep them permanently, either as acute or chronic cases. It also proposes to fix the weekly charge to the counties for all pauper insane at \$1.50 *per capita*, leaving the State to make up the deficiency in cost of maintenance. The State is also to be districted for the various asylums and the "inexpensive structures" required by this change to be annexed to each existing institution, are not to exceed a given rate *per capita* for cost of construction. The distinction between "indigent" and "pauper" in the existing law, having reference only to the subsequent legal liabilities of the patient, is retained. Thus the distinction between separate institutions for the "chronic" and the "acute" insane respectively—a distinction never approved by the best authorities among our predecessors—will be practically done away, and all our asylums will be, what this JOURNAL has ever advocated, *mixed* asylums, for the treatment and care of *both* classes. As only a certain percentage of recoveries takes place in *any* institution, under this new system, patients who have become accustomed to a certain fixed residence, and attached to a certain permanent personal administration by that knowledge of personal characteristics on both sides which it requires time to perfect, will not have to be transferred to other surroundings, where all is new and strange, and perhaps far inferior, often causing an exacerbation of their malady.

Dr. Stephen Smith, our able State Commissioner in Lunacy, has taken Willard, with its very complete arrangements and its large farm of 1,000 acres, as a palmary example of what all our State asylums, thus put in charge of all the insane in the State, may thus become. The "central administration building" will be the

place for the reception of patients, who will either be retained there for hospital treatment, or told off to some one of the groups or annexes, according to the requirements of the case. As a matter of fact, he shows that all the asylums at present are practically "mixed," all reporting patients of both classes, differing only in their proportions. If Willard thus proves to be the crucial experiment by which the principles of the Curtis bill shall be grafted into the law of the State, the old members of the specialty who had their misgivings in regard to the wisdom of that plan will be more than gratified at the turn things have taken.

It was foreseen that State asylums for the chronic insane alone would inevitably result at last, either in the revival of county care or in a call for the great enlargement of existing asylums. The Curtis bill promises two great advantages: 1st, the better utilization of all existing asylum plant, making it answer for the maintenance of largely increased numbers on a less expensive scale; and 2d, a plan which will be permanent—a policy which will not have to be broken in upon by any new device or departure, in order to provide for the rapid increase of the insane element. This bill furnishes a system that will meet any increase of population, as fast as it is required. In our opinion, the existing institutions, including the two new asylums in process of construction, with the facilities allowed by this bill, of adding groups of cottages, will soon be ready to accommodate, and properly care for all the insane of the State.

It was of course to be expected that the bill would meet with opposition. It has, however, the warm support of all our asylum superintendents, and of all who have made a special study of the complicated problems connected with the due provision for the insane. It is not merely the present that is to be provided for. The State has too long been without a settled policy on this subject, and left to the costly experience of inconsistent plans and theories. It is time to agree upon some established principles. This bill proposes a policy which can answer all questions and meet all exigencies. It presents a principle which has already been acted upon in other States, and which is the approved conclusion of the latest and most enlightened science.

It has the express endorsement of the New York Neurological Society, the County Medical Society of New York, the New York Academy of Medicine, while the New York State Medical Society has time and again condemned the relegation of pauper insane to the county houses of the State.

At a recent meeting of the State Medical Society in Albany, the following report was discussed and adopted with reference to this very subject, in view of the proposals contained in the bill now before the legislature :

(1.) That until comparatively recent times the insane were considered and treated as criminals, and confined in dungeons or prisons.

(2.) Their subsequent retention in poor-houses was but a remnant and mitigation of the old system.

(3.) The treatment of the insane has improved with the progress of civilization.

(4.) Therefore, special hospitals were supplied for them, and their welfare was intrusted to scientific and humane experts.

(5.) To return to anything like the old system of treating the insane in poor-houses or relegating them to the custody of county officials would be a grave mistake.

As early as 1855, at a meeting of County Superintendents of the Poor, held at Utica, the following among other resolutions was passed :

“Resolved, That no insane person should be treated or in any way taken care of, in any County poor-house or other receptacle provided for and in which paupers are maintained or supported.”

(6.) For the proper classification and treatment of the insane, more means are required than for the patients of general or even other special hospitals. Institutions for the insane therefore demand medical experts as superintendents, nurses trained in the general care of the sick, and then in the special care of the insane, schools for the physical and intellectual training of outdoor and indoor industries, and many other appliances.

The Board of Managers of the State Asylum at Utica have emphatically endorsed the principle of the bill, although they are inclined to doubt the sufficiency of the designated maximum *per capita* cost for construction of additional buildings, as it is desirable that these annexes should be as durable as the original edifices.

We observe too that the press of the State, both in city and country, eagerly approves the principle that the insane should be under State care and not left to county houses. There are cases indeed of counties that have, by the license of the State Board of Charities, been exempted from the operation of the Willard Asylum Act, and have greatly improved their county houses in accordance with the requirements of the board ; and the example of two or three like that at Rome, in Oneida County, which approximates an unusual degree of suitable care, may be used by the opponents of this bill. But it is to be considered, that under all circumstances, with frequent political changes, and the more direct incidence of county taxation, the *tendency* of county

management must always be to deterioration; and in spite of the utmost vigilance of Boards of Charity that have little or no real authority, the gross abuses of a former period may creep in unperceived. The report of a committee of the State Charities Aid Association at Buffalo last year on the state of things at the Erie County Almshouse, gives some suggestive illustrations as to this point.

With the increase of population going on all the time, there will be no need of sacrificing the property now used in any county for the care of the insane. In hardly any case, is it more than either is or soon will be required for the greater convenience and better administration of the almshouse itself. An enlightened policy will see here no valid objection to this bill.

MISUSE OF PATRONAGE IN ENGLAND.—British superintendents traveling in the United States have frequently marvelled that in some of the less enlightened parts of the country, asylum superintendencies should be regarded as spoils for the victors, and that tenure of office is thus occasionally dependent on the favor of politicians. In the exercise of a national characteristic our transatlantic confrères have not failed to moralize on the obvious evils of such a system or to point the finger of pride at home institutions, where preferment is obtained and retained solely by legitimate methods. We have no desire to meddle in British affairs, yet we cannot forego the opportunity for brief animadversion on the recent appointment at Hayward's Heath Asylum, by way of emphasizing the danger of stone-throwing when practised by dwellers in glass houses. The story told in our British correspondent's letter compels acknowledgment of the grievance of the assistant medical officers of Great Britain. Intense ill feeling has been caused by the appointment of an outsider at Hayward's Heath *vice* Dr. Williams resigned. The vacancy was duly advertised, but with conditions as to alphabetical tenesmus, *anglicè* "qualifications," so stringent as to narrow considerably the field of selection. Nevertheless a goodly company of able and distinguished alienists appeared in the arena, and the Hayward's Heath committee had as fine an array of talent as it could well wish. The gall and wormwood of the story lies in the fact that men high in the specialty and occupying public office should combine to defraud a deserving class of medical men of its rights by persuading the committee to appoint instead a personal friend who is nearly fifty years of age and has been a sanitary medical

officer for the last ten years without being engaged in private practice. Quite a storm of indignation has swept from south to north, and a special meeting of the British Medico-Psychological Association has been summoned to discuss the situation. The case of the assistant medical officers is well put in a numerously signed letter addressed to the President, Council and Members of the Association, and we understand that the services of Mr. Henry Labouchère, the fearless champion of the oppressed, have been bespoken to ventilate their grievance in the House of Commons. It will be interesting to learn whether or not the friends of the Lord Chancellor's Visitors are sufficiently powerful in the Association to suppress the agitation. Meanwhile we commend the righteousness of the assistants' cause, and hope the time is at hand when like exhibitions at home will arouse like indignation.

THE WISCONSIN STATE BOARD OF SUPERVISION.—A statement made in our last issue concerning a recent appointment at the Northern Hospital for the Insane has led to our being accused by the State Board of Supervision of committing "gross libel" upon itself and Dr. C. E. Booth. We labored under the misapprehension that the "Wisconsin Board of Charities and Reform" and the "State Board of Supervision" were one, while the fact appears that such idea of unity cannot for a moment be entertained. We are informed in forcible English that the State Board of Supervision has no more to do with the County asylums than the "man in the moon." We believe we are correct in stating, however, that the Wisconsin Board of Charities and Reform is hostile to State asylums and friendly to County asylums. The State Board of Supervision of the Wisconsin Charitable, Reformatory and Penal Institutions is a salaried board whose mission is to supervise nine of the public institutions of Wisconsin. Its great *forte* appears to be economy, and the principal harm which it is doing to the State asylums of Wisconsin comes from ill-judged notions of saving. It does not allow the Board of Charities and Reform (which corresponds to our State Board of Charities) any voice in the management of the State institutions: hence a not unnatural feeling of antagonism between the two boards. Our reference last January to the yearly appointment of a superintendent was made in the interests of the service. Surely there cannot be two opinions about that. If we have done Dr. Booth an injustice we beg his pardon, as we beg that also of the State Board of Supervision for mistaking its identity.

THE INDEX MEDICUS.—A striking commentary on our lack of scientific zeal and failure to appreciate a home article of signal value, is the lamentable fact that the *Index Medicus*, "the most illustrious medical publication in the United States," is not a financial success. We appeal to our readers in behalf of Mr. Geo. S. Davis, of Detroit, Michigan, the magnanimous publisher, to put their hands into their pockets, and subscribe for the publication. A memorandum showing the number of paying subscribers by States brings out the fact that important States like North Carolina, Kentucky and Iowa have not a single subscriber. The *Index* cannot be conducted indefinitely at a loss, and its discontinuance for want of support would be an universal calamity and a national disgrace.

THE INSANE IN COUNTY POOR-HOUSES.—From facts recently brought to our notice it appears that the insane in New York State are not infrequently committed directly to county poor-houses without ever having had the benefit of treatment in a State institution. Duration of insanity in these cases is frequently less than one year, and very often too the chronicity of the disease is vouched for only by common rumor of the neighborhood. The present State Commissioner in Lunacy, of New York, has always held that a person could not legally be classified as insane until duly adjudged insane under, and in accordance with, the laws of the State. Therefore every person adjudged insane for the first time is entitled to the benefits of a State asylum, although, as a matter of fact, he may have been insane many years. Equally is a person entitled to re-admission to a State asylum, who, having been cured of a first, second, third or fourth attack, has suffered a relapse and is again in need of treatment. We have reason to fear that the State Board of Charities does not entertain these views, and we know it to be a fact that on the part of the Counties the wish is becoming stronger, with few exceptions, to retain their insane, acute as well as chronic.

RACE AND INSANITY.—In connection with Drs. Bannister's and Hektoen's article on this subject, it may be of interest to note that a census as to nativity was taken at the Utica asylum February 3, 1888. Of a total of 593 patients, the number born in the United States of American parentage was only 308 or 51.94 per cent. The number born in the United States of foreign parentage was 134 or 22.60 per cent; while 151 or 25.46 per cent were born in

foreign countries of foreign parents. Of the 151 patients of foreign parentage and foreign birth, 60.26 per cent were Irish, 21.18 per cent German, and 8.60 per cent English.

THE DEATH OF DR. GOLDSMITH.—At a meeting of the New England Psychological Society, held on the tenth of April, 1888, the following resolutions were unanimously adopted:

The New England Psychological Society having learned the painful news of the death of a highly valued and beloved member, Dr. Wm. B. Goldsmith, Superintendent of the Butler Asylum at Providence, R. I., recalls with a deep sense of its great loss, his high character, exceptional ability, and refined and genuine nature.

Resolved, That such has been the influence of his opinions, based upon his solid attainments and great devotion to his work, that broader views of the treatment of the insane and deeper insight into mental disease, have come to many of us, his fellow-workers.

Resolved, That by his death is lost a tried and considerate friend, a judicious and helpful counsellor, and a courteous and cultivated associate.

Resolved, That the secretary be requested to communicate these resolutions to the family of our deceased friend, and to extend to them our profound sympathy in their sorrow.

H. R. STEDMAN, M. D.,
THEO. W. FISHER, M. D.,
C. P. BANCROFT, M. D.,

WALTER CHANNING, M. D., *Secretary*.

Committee.

The New England Psychological Society, and the writer of the obituary on another page, have well expressed the sentiments of all whose privilege it was to know Dr. Goldsmith. The AMERICAN JOURNAL OF INSANITY loses in his death a valued contributor and a staunch friend. The notes of a clinical case in this issue, sent to us by our late colleague for publication, within a few weeks of his death, possess a melancholy interest and furnish opportune confirmation of testimony that has been borne to his painstaking care and scientific zeal. No one will dispute our claim that Dr. Goldsmith stood *facile princeps* among the younger superintendents of asylums in all that pertained to the scientific side of American psychiatry. He was a constant foe to asylum routine, and while according due importance to purely administrative work, he neither suffered himself nor others to forget that before all else he was a physician.

THE RELIGIOUS DELUSIONS OF THE INSANE.—We are glad to be able to print in this issue the paper read by Dr. H. M. Hurd, of Pontiac, Mich., at the International Medical Congress, if for no other

reason than thus to make appropriate answer to the criticism of Dr. Savage, in the January number of the *Journal of Mental Science*, that "he has got as far as the collecting stage, but not yet to that of the philosopher."

The intention of the paper, we take it, was to describe the religious delusions which develop in the various forms of insanity. One may fully agree with Dr. Savage that the connection between sexual disorders and religious delusions is not satisfactorily explained; but who—may we ask—has ever given a satisfactory solution of the problem? The paper is eloquent in its own behalf as an honest effort to deal with a difficult and perplexing topic.

THE ASSOCIATION OF MEDICAL SUPERINTENDENTS of American Institutions for the Insane will meet in forty-second annual session at Hygeia Hotel, at Old Point Comfort, Va., May 15, 1888. We have the assurance of Dr. Godding, the chairman of the Committee on Arrangements, that the meeting promises to be a success. The following list of gentlemen who are expected to contribute papers is in itself a sufficient guarantee that this promise will not fail of fulfilment: Dr. J. B. Andrews, Dr. R. M. Bucke, Dr. Walter Channing, Dr. J. B. Chapin, Dr. Daniel Clark, Dr. Edward Cowles, Dr. Richard Dewey, Dr. Orpheus Evarts, Dr. T. W. Fisher, Dr. W. W. Godding, Dr. Henry M. Hurd, Dr. George C. Palmer, Dr. R. J. Patterson, Dr. J. T. Steeves and Dr. S. H. Talcott.

A general interest is expressed in the report on the "Propositions," which will be by Dr. Evarts. Drs. Bancroft, Bryce, Kilbourne, Stearns, Draper and Patterson have all expressed themselves strongly in writing, and if able to be present, will take part in its discussion. The nestor of our specialty, Dr. John S. Butler, writes enthusiastically in the hope that the "Individualized Treatment of Insanity," will be adopted as a principle. The other survivor of the "original thirteen," the venerable Dr. Pliny Earle, writes warmly and leaves us not without hope of a paper from him on the "Propositions."

Several members have suggested the advantage of holding the next meeting on the Pacific slope. There are few of us who would not rejoice at an opportunity thus afforded for legitimate absence from our posts of duty on a *utile dulci* journey to California.

OBITUARY.

WILLIAM B. GOLDSMITH, M. D.

"Dr. William B. Goldsmith died of pneumonia at the Butler Hospital, in Providence, R. I., March 21st, aged thirty-four. He had not been quite well since a professional visit to New Orleans, where he had a febrile attack last autumn, and several times of late he had spoken of feeling ill. Although the initial chill was on the 14th, he kept about, supposing that he had taken a severe cold, until the 17th. After that he grew rapidly worse, the dusky color of the skin, the weak action of a heart, which had long caused him some uneasiness, and the rapid increase in the difficulty of respiration, showing clearly to him quite soon that "the chances were against him." Although wishing to live, he regarded his death with a calmness and courage which one might well envy him, and made every preparation for it to the last detail, remembering each and all of his friends with that kind thoughtfulness of others which well or ill he never forgot."*

Dr. Goldsmith was born at Bedona, Yates county, N. Y., January 11, 1854. His education was received at the Canandaigua Academy, and at Amherst College. Graduating from Amherst in 1874 he began at once the study of medicine under the guidance of Dr. John B. Chapin, at that time superintendent of the Willard Asylum for the Chronic Insane. Spending nearly a year at this asylum he became deeply interested in the subject of insanity, and pursued his medical studies with the object of ultimately connecting himself with some institution devoted to the care of the insane. He was graduated with high honor from the College of Physicians and Surgeons of New York, in 1877, and entered upon a hospital career at the Presbyterian Hospital, which was interrupted by his appointment as junior assistant at the Bloomingdale Asylum, in May, 1877. In the fall of 1879 he resigned this position and went to Great Britain, where he spent four months as a voluntary assistant of Dr. Clouston in Edinburgh, six months in the same capacity with Dr. Major at the West Riding Asylum, and two months in the prosecution of special studies in London with Hughlings-Jackson and others. In September, 1880, he was appointed senior assistant at the Bloomingdale Asylum, and immediately returned to America to accept the

* *Boston Medical and Surgical Journal* for March 29, 1888.

position. In March, 1881, he was appointed superintendent of the Danvers Lunatic Hospital. In 1883-4 he passed a second year in Europe, studying with Westphal, Krafft-Ebing and others, and visiting the principal hospitals of Germany, Belgium and France. His superintendency of the Butler Hospital began in February, 1886.

To the Danvers Lunatic Hospital Dr. Goldsmith brought, at a somewhat critical period, a ripe experience of hospital work, and a capacity for organization that speedily made themselves felt in every department, and he had at length the satisfaction of seeing the hospital firmly established in the public favor, and of organizing certain features of management which have materially influenced the subsequent treatment of insanity in New England. His removal to Providence was to the great and sincere regret of the trustees and officers of the Danvers Hospital, and was everywhere regarded as a serious loss to the public service of Massachusetts. Success attended him at the Butler Hospital, where his untimely death is deeply deplored. In every department of his specialty he was equally accomplished. Of deep convictions, conservative yet fearlessly progressive in his opinions, and with a rarely well-balanced judgment he seemed destined to exert a wide and lasting influence upon American psychiatry.

As an expert in insanity he was held in just esteem. A former Attorney-General of Massachusetts, now a Judge of the Superior Court, remarked to the writer shortly after an important capital trial which he had prosecuted, and in which Dr. Goldsmith had been the principal medical witness for the defense: "Dr. Goldsmith is an ideal expert witness. His opinions are unbiased and deliberate, his knowledge is extensive and accurate, and his honesty and sincerity of character are so impressed upon all who hear him that his testimony is almost irresistible in its weight."

Notwithstanding the pressure of official duty, Dr. Goldsmith always maintained an active interest in general medicine, and constantly sought to impress the importance of cultivating a medical spirit upon his staff. He was a member of the Association of Medical Superintendents of American Institutions for the Insane, of the New England Psychological Association, of the Boston Medico-Psychological Society, and of the Rhode Island State Medical Society. To these societies he made frequent contributions, his last having been a paper upon the opium and cocaine habits, which was read before the Boston Medico-Psychological Society in February last.

Although exhibiting a manner somewhat reserved and retiring, his social qualities were of a very high order. The soul of honor, generous in all his feelings, with an exquisite sense of propriety that never deserted him and with an almost chivalrous consideration for others at all times, he was, wherever known, a favorite. The faculty of making friends he possessed in a remarkable degree, and all with whom he had once become intimate cherished an affectionate regard for him and an interest in his work which time and distance never seemed to diminish. As the chief officer of an asylum he maintained an easy dignity and a courtesy of bearing toward his subordinates which inspired obedience, loyalty and respect. Devoted to his duty, sparing himself no burden of responsibility that belonged to his position, he created throughout an institution the feeling that in the performance of the best work within his power, lay the secret of success for each. By his patients he was greatly beloved, and many a heart whose burden he has helped to lighten now shares the common sorrow at his death.

Taken from his field of labor at an age when most men have but fairly entered upon a career, so extensive had been his acquirements, and so faithfully had he discharged his duty that, though his death at the full tide of strength and endeavor, blights many a brilliant prophecy, it bequeaths the history of a life singularly well rounded and complete, not the least value of which is that in an age of activities too often selfish, and without scruple it conclusively demonstrates that the highest personal success may be attained solely through the possession of great abilities wisely and nobly employed.

“O, strong soul, by what shore
Tarriest thou now? For that force
Surely has not been left vain!
Somewhere, surely, afar,
In the sounding labor-house vast
Of being is practised that strength
Zealous, beneficent, firm!
Yes, in some far-shining sphere
Conscious or not of the past,
Still thou performest the word
Of the Spirit in whom thou dost live,
Prompt, unwearied, as here.”

G.

ACHILLE FOVILLE, M. D.

The distinguished savant, alienist and editor, M. Achille Foville, died at Paris of Bright's disease, December 15th, 1887, æt. 56.

His life is an example of professional devotion, zeal and generous self-sacrifice. His career was chosen early. His father, M. Achille Louis Foville, was professor of physiology at the medical school of Rouen, and physician-in-chief of the asylum for the insane at Saint-Yon. The son determined to be a physician, and, like his father, an alienist physician. To this end he obtained a thorough general and medical education in France, England and Germany, and secured appointments in the most celebrated asylums of France. In 1858, he became permanently connected with the *Annales Médico-Psychologiques*. After the early preparative period, his life is divisible into two distinct phases—one devoted to science, the other to legislative and administrative questions. He published numerous articles on mental pathology, and was a frequent writer on topics dealing with the jurisprudence of insanity and the care and custody of the insane.

He held successively the positions of medical director of the asylum at Dôle; medical superintendent of Châlons-sur-Marne; superintendent of the asylum at Quatres Mares; inspector-general of the charitable institutions and insane asylums of France.

His more purely medical writings indicate great clinical sagacity and precision of observation and are marked by originality and clearness of expression. He never permitted himself to indulge in vague generalities; he was enlightened only by the torch of clinical observation.

As an editor and director of the *Annales Médico-Psychologiques* he published regularly, original articles displaying extensive erudition, incisive judgment, and an unbounded facility for work. As an administrator, he was progressive, never the victim of routine; wise, intelligent, honest and just.

As a counsellor and arbitrator, a rôle which was peculiarly his own, he exhibited rare tact, a conciliatory spirit, scrupulous justice, and was everywhere and always a staunch defender of medical rights. As inspector-general he applied himself zealously to questions of comparative legislation with reference to the reform of French lunacy laws, and had the satisfaction of seeing many of his suggestions accepted. Perhaps his most important works are: "The insane; a practical study on the legislation and care which are applicable to them" (1870); articles on General Paresis, Convulsions, Delirium, Dementia, etc., in the *Nouveau Dictionnaire de*

Jaccoud, (1869-1872); "Insanity in the United States; Legislation and Treatment" (*Annales d'Hygiène*, 1879); "a comparative study of foreign legislation as regards home treatment of the insane" (*Annales Médico-Psychologiques*, 1884); and a report entitled "Relative Legislation of Insanity in England and Scotland," (Paris, 1885).

These are but few of the facts in the life history of the distinguished man whose untimely death has produced universal sorrow. His colleagues and companions lose a wise friend and counsellor. His death creates a vacancy in French psychiatry which cannot easily be filled. The greatest homage rendered him in the eulogies of his countrymen was that his only passion was to be useful and to do good.

QUARTERLY SUMMARY.

CONNECTICUT.—At the yearly meeting of the Hartford City Medical Society, held January 2, 1888, Dr. Gurdon W. Russell presented Dr. Henry P. Stearns with a silver snuff-box, the former property of Dr. Eli Todd, the first superintendent of the Retreat. The gift is to be retained by Dr. Stearns during his incumbency at Hartford and passed on to his successors in office, to the end that the memory of Dr. Todd may be thus cherished and perpetuated. Dr. Russell made a felicitous presentation speech, and, needless to say, Dr. Stearns was characteristically happy in his response, for the gift was "one not to be sneezed at."

ILLINOIS.—Dr. Louis R. Head, of Albion, Wisconsin, has been appointed assistant physician at the Eastern Illinois Hospital for the Insane at Kankakee, as successor to Dr. Prince. Dr. Delia Howe has tendered her resignation to take place June 1st, and Dr. Anna C. Burnett has been appointed in her stead. Dr. Edward Howard has been added to the staff.

The graduating exercises of the training school for nurses at this hospital were held on the evening of February 3d. Addresses were delivered by Dr. Hosmer A. Johnson and Dr. Sarah Hackett-Stevenson, both of Chicago, and by Dr. Dewey, the superintendent. In the graduating class there were forty members, of whom thirty-two graduated and eight failed to reach the required standard.

The new detached building for 300 patients at the Central Hospital for the Insane, Jacksonville, is full and working very satisfactorily. This building, furnished, heated, and completed ready for occupancy, cost \$383 per capita, being the cheapest provision for the insane that has been made in this State. Additions are in progress which, when completed, will enlarge the dining-room for eighteen of the wards. A much needed change has been made by replacing four of the old steam boilers with new ones.

IOWA.—A law has been enacted to organize the new hospital at Clarinda, by the appointment of a board of trustees who are empowered to elect a superintendent and take all steps necessary to open the new institution. Before this can be done, however, it will be necessary to erect a general kitchen and a boiler house, to supply heating apparatus, laundry, machinery and cooking utensils, as well as to provide the entire building with furniture. This hospital will probably not be ready for patients before the 1st of January next.

MAINE.—The chapel, laundry and engine house of the Maine Insane Hospital are being enlarged. The advisability of introducing electricity into the Institution is under consideration.

MARYLAND.—The new system of sewerage at the Maryland Hospital for the Insane is now in successful operation. The various fences around the airing courts on the side of the building occupied by men patients have been removed and the spaces thus occupied converted into an open lawn. This has resulted in a decided benefit to the patients, while the view from the wards is no longer obstructed, and the beauty of the grounds is greatly enhanced.

Dr. B. A. Turner, assistant physician for the past four years, having resigned, Dr. B. D. Evans, of Millington, Kent County, has been appointed in his place.

MASSACHUSETTS.—The following are the changes in the staff at the Boston Lunatic Hospital: Dr. Robert Swift has been appointed first assistant physician to fill the vacancy caused by the resignation of Dr. Edward B. Lane, who resigned in order to accept the position of first assistant at the Northampton State Lunatic Asylum; Dr. Charles G. Dewey, formerly assistant physician at Taunton, has been appointed second assistant; Dr. Frederick J. McNulty has been appointed superintendent of the Retreat for the Insane, Austin, Farm, Dorchester.

MICHIGAN.—Deep gloom has been cast over the Eastern Michigan Asylum, by the death, on March 17th, 1888, of Mrs. C. B. Burr, wife of the assistant superintendent. She was in fullest sympathy with her husband's work—a zealous worker in the broad field of philanthropy afforded by asylum work at Pontiac. An infant daughter survives to console the bereaved husband.

MINNESOTA.—A novel event among the amusements of the winter at the Rochester Asylum was a masquerade ball recently given. It is the intention of the trustees to have one of the detached wards of the third hospital ready for occupancy in a year. They will build another at Rochester this season.

NEBRASKA.—The Nebraska Hospital for the Insane is very much overcrowded, there being at present 415 patients, with proper accommodation for only 320.

The Hospital for the Insane at Norfolk, accommodates 100, but will be enlarged during the present year to a capacity of 300. Dr. E. A. Kelly is superintendent, and Dr. W. Hanson first assistant physician.

In this State, at present, the harmless incurable insane are cared for in county almshouses or jails. The last legislature, however, located, and made a small appropriation for, an asylum for the chronic insane, at Hastings, in the

western part of the State, and work upon it has already begun. No officers have as yet been appointed. The plans of this asylum contemplate the congregate system, and are similar to the ordinary asylum plan, with central administration building, with wings on either side, three stories high, containing a central corridor and small bedrooms on each side.

NEW HAMPSHIRE.—Dr. Samson, of Dartmouth, has been appointed an assistant physician at the New Hampshire Asylum, at Concord. Steps have been taken to enlarge the Fisk wing by building a bay. This will be carried beyond the roof, giving sufficient space for an infirmary, which will be light and exposed to the sun. The *Asylum Record* is a weekly publication printed in the institution.

NEW JERSEY.—Dr. Richard W. Kent, a graduate of New York University in 1886, has been appointed, after a satisfactory examination, second assistant physician at the Essex County Asylum for the Insane, Newark.

The Essex County Asylum at Newark, being overcrowded, a wing accommodating 150 patients will be erected this year.

Two bills of considerable interest have been passed by the Legislature. The first provides that the State shall pay two dollars per week instead of one to each county supporting its own patients, the second for the establishment in each county of a place for the temporary confinement of the insane, with proper medical supervision, while inquiries are being made and the question of insanity determined.

A legislative committee has been appointed to investigate the charges made against the management of the State Asylum at Morris Plains, by Dr. Russell, in the last number of this JOURNAL.

Prof. Charles McMillan, of Princeton College, sanitary engineer in charge of the Waring sewerage system, estimates that \$3,600 in addition to the amount already expended, will be necessary to complete the plan. The wooden floors of the machine shops, centre, south, and a portion of the north ducts of the building have been replaced with solid concrete floors, and the return steam pipes on either side of the passages have been covered with corrugated iron plates, in order that they might be readily reached for repairs. General and extensive repairs have been made in the boiler fixtures and the machinery in laundries, bakeries, etc. Dr. Edward C. Booth, the medical director, strongly urges the separation of the convict and criminal classes from the rest of the population. In this institution there are already fifty insane convicts. The position of fourth assistant physician is still vacant.

NEW YORK.—Dr. George W. White, one of the assistant physicians at the Kings County Insane Asylum, has resigned, owing to ill health.

As a result of the recent agitation on the subject of the New York City Insane Asylums, an increased appropriation has been made for their maintenance. Formerly one-half of the medical staff at each institution served without pay, while the others received salaries ranging from \$250 to \$800. Now all the members will be paid salaries, which will range from \$300 to \$1,200.

Dr. Frederick Petersen, formerly first assistant physician at the Hudson River State Hospital, has settled in New York, instead of at Buffalo, as stated in the last number of this JOURNAL. He has recently been appointed

Clinical Assistant in the nervous department of the Manhattan Eye and Ear Infirmary, and to the same position at the Polyclinic; he is physician in charge of the nervous class at the North Eastern Dispensary, and Instructor in Histology of the brain and spinal cord at the Post Graduate Medical School.

Miss Mary E. Newcomb resigned her position as Matron of the Buffalo State Asylum on the first of February last. The vacancy thus created has been filled by the appointment of Miss Clara J. Dickerman, who is a graduate of the McLean Asylum Training School.

The Managers of the New Asylum at Ogdensburg, in their first annual report, recommend that \$5,000 be appropriated to enable them to employ a superintendent, a farmer, and suitable assistants as soon as needed. As the land recently purchased is in a good state of cultivation, in order to keep it in that condition, make use of the pastures, and eventually provide the institution with a dairy, they ask also for an appropriation of \$8,000 to purchase stock, teams, utensils and supplies. It is expected that a superintendent will be appointed this year.

The appearance of the male division of the State Asylum, Utica, has been much improved by the complete reconstruction of five of the twelve wards, the addition of three large sun-rooms, and the provision of much new furniture. The introduction of an electric light plant necessitated the erection of a new engine and dynamo house. Two new Corliss engines and two new boilers are in operation.

The sum of \$185,000, asked for by the Commissioners of the new Criminal Asylum at Matteawan, for the purposes enumerated in their report, has been granted by the Legislature—making a total grant of \$485,000. This sum, it is expected, will provide about 120 acres of additional land (370 in all) and complete the buildings, excepting as to plumbing, heating, lighting and furnishing. The contract for the buildings has been awarded to Sullivan & Clark, of Binghamton, N. Y., they being the lowest bidders. They are required to have their contract completed by May 15, 1890. The feature of the new asylum, which provides a separation of the day and night service is highly commendable. It is also a step in advance of present usage to accommodate the superintendent and his family in a separate residence.

NORTH CAROLINA.—The most important improvement at the Eastern North Carolina Insane Asylum has been the introduction of a system of Water Works for protection against fire. It consists of a large tank with a capacity of 10,000 gallons of water on a tower 61 feet in height from the ground, eight feet higher than the roof of the building, connecting with a system of three-inch pipes running around the building, supplied with nine hydrants, so arranged that two streams of water can be brought to bear on any point on short notice. Four inside plugs to each floor and two in the attic, with thirty feet of hose always attached to each plug, have been provided in addition. The whole system is connected with two force pumps on the river.

Dr. Frank J. Fuller, first assistant physician of the North Carolina Insane Asylum, who has been connected with the institution for more than thirty years, has been granted an indefinite leave of absence, with full pay, to recruit his shattered health.

Dr. Grissom, the superintendent, in his annual report, pays a merited

tribute to Miss Dorothea L. Dix, who was chiefly instrumental in bringing about the erection of a hospital for the insane in this State.

OHIO.—For the first time in the history of the Columbus asylum a very efficient system in full working order for extinguishing fires has been constructed. The plan consists of stand pipes in each ward, as well as through the different parts of the centre, and hydrants on the outside of the building with the hose and attachments necessary. The term of office of Dr. C. M. Finch, superintendent, expires May 3d, and Dr. McMillan of Columbus, Ohio, has been appointed to succeed him.

Five years ago an appropriation was made for the building of the Toledo Asylum for the Insane, and in January of the present year it was opened for the reception of patients. On the 5th of that month 160 men were transferred from the asylum at Columbus, and five days later 180 women were sent from the same place. Since that date the admissions have increased the population to about 500. When all the buildings are ready for occupancy there will be accommodation for about 1,000 patients.

The State of Ohio is districted and territorially divided into several asylum districts, each of which has its own institution, into which all the insane of the district must be received without reference to the duration of their insanity. All the State asylums are supported by yearly legislative appropriations from the State funds, just as our public schools are, and paupers and millionaires are admitted upon equal footing and entirely free from expense.

In order to secure the admission of a patient to an asylum an affidavit must be made by two citizens and filed with the probate judge, setting forth their belief in the patient's insanity and testifying to his residence in the district in which the asylum is situated. The judge then issues a warrant authorizing them to bring the person alleged to be insane before him at some specified time within the next five days, and also issues subpœnas for such witnesses (one of whom must be a respectable physician) as he deems necessary for a proper inquiry. The patient may, if he desire, demand a jury trial. Patients may be discharged from any asylum at any time during the month, but the superintendent must notify the probate judge of such action at the end of the month.

The asylum is situated on very unattractive grounds, about four miles from the city of Toledo. There are in all only 160 acres of land, of which 115 are already devoted to the buildings and pleasure grounds, thus leaving practically nothing for farm or garden purposes. When the grounds have been laid out there will be no way of furnishing agricultural employment for the large number of patients which the asylum is intended to accommodate. All provisions, including milk, must be purchased and there can be no question as to the enhanced cost of supporting patients under such circumstances.

The asylum is built on the cottage plan, there being twenty cottages in all, each accommodating from twenty to forty-five patients. There are also in addition two infirmaries for feeble and filthy patients, each having two wards capable of accommodating together sixty patients. There are also two hospital buildings, with accommodations for thirty patients of each sex. On one side of the administration building is the chapel, and it is the intention of the managers to build an amusement hall on the other. Next to the chapel are the cottages for the women. The first and second buildings are intended

for the better class of patients, each having its own dining-room, while the patients in the other cottages go to the large general dining-room. The patients in the infirmaries and hospitals also take their meals in the buildings in which they live. The cottages are all pleasant and in the main well arranged. With the exception of the first two, which are generously supplied with single rooms, the general plan is to have a large sitting-room on the first floor where the patients spend the day, while the upper story is used as a dormitory, there being, aside from the rooms occupied by the attendants, only one or two single rooms in each cottage for the use of patients. In connection with the dormitory is the lavatory and water-closet, which is open and lighted during the night. All patients are directed to use the closets before going to bed, and as they are accessible during the night the objectionable "chamber" is almost entirely done away with.

The buildings for the filthy patients are the only ones that have night attendants, the night service in the others being performed by watchmen, who at stated intervals open the door of each cottage and listen for signs of disturbance. Access beyond the outer hall cannot be gained without calling up the attendants within.

The sitting-rooms in the various cottages have no guards on the windows. They are carpeted and pleasantly furnished and present a cheerful and home-like appearance. The large number of windows would seem to require more piazzas as comfortable airing places during the heat of summer.

On the other side of the centre building is the same arrangement of cottages for men.

At either end of the grounds is a building for disturbed patients, each having four wards with nineteen single rooms in each ward. These buildings are badly arranged and very unattractive. They are entirely out of keeping with the rest of the asylum. The day space is small. The single rooms are strongly guarded, and each has a stationary "hopper," which is flushed by turning a key on the outside. They are unsightly and cannot fail to be uncleanly. Many changes are needed in these two buildings in order to remove their penitentiary appearance. These buildings are fire-proof. The patients from this department take their meals in small, separate ward dining-rooms.

The mechanical department of the asylum, including the ventilation of the the different buildings, appears quite perfect. Natural gas is used as fuel for all the boilers, ranges, ovens, and fire-places and its convenience, cleanliness and cheerfulness are strikingly apparent.

All the lighting is by electricity, and there is an arc light in front of each cottage. The cottages are each connected by telephone with the administration building. The steam pipes and electric wires are carried around the grounds in a tunnel six feet high and four feet wide. The water supply is obtained from the city water works. The fire protection is good and the organization of a fire department is contemplated.

One of the pleasantest features of the asylum is the large general dining-room. It is situated in the middle of the grounds in the rear of the main building. There are separate rooms for the male and female patients, with a serving room between where the food is taken and kept warm, by means of large steam tables, until served. Four hundred patients can be accommodated in each and at the present time two-thirds of all the patients dine there, as do all of the employés. An attendant sits at the end of each table

while the food is served by the other attendants. The sight of so many insane persons dining together is an extremely pleasant one, and the plan must commend itself to all asylum officials. There is no covered way leading from the various buildings to the general dining-room, and in unpleasant weather umbrellas, overshoes and rubber coats are brought into requisition. There are undoubtedly some slight disadvantages in this, but in pleasant weather the short walk thrice daily in the open air cannot fail to be enjoyable and beneficial.

The kitchen is quite perfect in all its appointments. The food for the entire asylum is cooked in this one place, and transported in nests of pans in an open cart to the buildings mentioned as having separate dining-rooms. Although the distance from the kitchen to the building for disturbed patients is about 300 yards, no trouble has been experienced it is said in getting the food there in good condition. In each dining-room there are arrangements in the way of steam tables for keeping the food warm after it has been taken from the cart. The tea and coffee for the whole establishment is also made in the general kitchen.

The conception of the plan on which this asylum has been built has many commendable features, but its execution is not entirely free from criticism. The work of the novice is often visible. The per capita costs of seven hundred and fifty dollars ought to have secured better results in many instances, in the way of workmanship and materials, and the location of such an asylum on ground where the quicksand necessitated the use of piles under each building, and a greatly increased expense for drainage and sewerage, together with the entire absence of tillable land, thus shutting out the valuable therapeutical and economical adjunct of agricultural employment, cannot be too strongly condemned.

OREGON.—The new wing of the Oregon State Asylum, Salem, will afford some relief to its present overcrowded condition. It will provide accommodation for forty-five patients, and will be heated by steam. The asylum has been fortunate in striking a vein of water in a bed of gravel which yields six thousand gallons per hour. This does away with the old method of supply from the water power canal. It is proposed to remove the high board fences from around the airing courts, and convert them into large and pleasant lawns with numerous beds of flowers and winding walks. The work of tiling all wet and low lands is now being carried on for the purpose of earlier cultivation.

PENNSYLVANIA.—The western Pennsylvania Hospital, at Dixmont, being within range of the new natural gas territory, it was determined to sink a well on the premises. After many vexatious delays and numerous failures, the experiment of providing heat from this source has been abandoned. The site selected was not a judicious one, it being too near the eastern line of the property. A contract, however, has been awarded to a company on fair terms for supplying the institution with natural gas.

There has been erected for the female department of the Pennsylvannia Hospital for the Insane a handsome villa, in the modern style of architecture, to accommodate ten patients with the necessary attendants. The rooms for the patients may be "en suite," if desired, including sitting-room, bed-room and attendant's room. It will be ready for occupancy in a few weeks.

At the State Hospital for the Insane, Warren, two large summer houses have been erected in front of the main building. Governor Beaver, at a recent visit, suggested the propriety of erecting a reading-room for both sexes, on the grounds in front of the hospital.

RHODE ISLAND.—The Sawyer Memorial Ward at the Butler Hospital for the Insane at Providence, approaches completion. It is connected with the southwest portion of the main building by a one-story covered corridor about forty-nine feet long. It is to be finished in hard wood, and will cost including foundations, plumbing and heating apparatus, besides the grading, turfing and drive-ways, about fifty-five thousand dollars.

This institution, by the death of the widow of the late Dr. Ray, received a legacy of sixty-nine thousand eight hundred and fifteen dollars. It is the largest sum ever bestowed on the corporation by single gift or legacy.

TENNESSEE.—The legislature has appropriated one hundred and fifty thousand dollars to complete the asylum for the insane at Bolivar. About two-fifths of the building is under roof and the work is being vigorously prosecuted. It is expected that the institution will be ready for the reception of patients by June, 1889. The grounds now consists of one hundred acres of land, and this being deemed insufficient, the commissioners asked the legislature for an appropriation to purchase two hundred acres more adjoining the present site. Dr. J. B. Jones of McKenzie has been appointed medical superintendent of construction.

VIRGINIA.—The commissioners appointed by the legislature to examine and report on the following subjects: First, as to the feasibility of dividing the State into three divisions for the purpose of providing for the white insane and, if advisable, to apportion the State for the respective divisions; second, providing for the transfer of patients from one asylum to another; third, to report a plan by which the quiet and incurable insane of both colors may be provided for at less cost than at present, and which will give more accommodations for new and violent cases of insanity, have submitted their report to the general assembly. In regard to the quiet incurable insane, they recommend the erection of buildings containing only large associated dormitories each to accommodate from thirty to seventy-five patients; these buildings to be annexed to the present asylums. The new and violent cases of insanity are to be provided for by adding to and enlarging the existing institutions. They recommend the erection of separate buildings, in connection with each asylum, for epileptics. The commission was composed of the superintendents of the four State insane hospitals.

WASHINGTON, D. C.—Among the various improvements at the Government Hospital for the Insane, the erection of a building for the convict and homicidal cases promises the most for the future comfort and welfare of this institution. "This is a strongly constructed, nearly fire-proof brick building, made light and cheerful, but provided with more than the ordinary safeguards against escape. The structure consists of a four-story central building, with projecting bell tower and two wings at right angles to each other. The central building, standing four square, is forty-five feet in diameter, and pro-

vides in its different stories a main iron stairway, a common dining-hall, rooms for the resident medical officer and warden, two large workshops for the inmates and rooms for the attendants. These latter open directly upon the wards, four in number, situated in the wings which extend eighty-eight feet south and west from the central building, exclusive of the basement story. Each wing contains two wards of fifteen single rooms, with iron stairs at the remote end opening into an enclosed court. The bath-rooms and water-closets are placed in a projecting tower having a ventilation distinct from that of the ward." It is expected that this building will be ready for occupancy before the next fiscal year, and will accommodate sixty men.

WASHINGTON TERRITORY.—The new hospital building at Fort Steilacoom having been finished was opened by a public reception on the night of December 15th, 1887. Between four and five hundred people were present including the Governor of the Territory and the legislature, which was then in session. The fine assembly room was beautifully lighted with electricity. The guests were entertained with vocal and instrumental music, a theatrical performance and dancing. The event was remarkably pleasant and all went away with only words of praise for the hospital and the building commissioners. The Governor has appointed two new trustees and reappointed one of the former board each to serve two years.

† The last legislature appropriated sixty thousand dollars for a new hospital for the insane at Medical Lake in the eastern part of the Territory, and work on its construction will be begun at an early date.

SUPERINTENDENTS AND SENIOR ASSISTANT PHYSICIANS OF
THE HOSPITALS FOR THE INSANE OF THE
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- Adams, G. S., Assistant Physician, Westborough Insane Hospital, Westborough, Mass.
- Allison, H. E., Assistant Physician, Willard Asylum for Chronic Insane, Willard, N. Y.
- Andrews, J. B., Superintendent, Buffalo State Asylum for the Insane, Buffalo, N. Y.
- Archibald, O. W., Superintendent, North Dakota Hospital for the Insane, Jamestown, Dak.
- Armstrong, C. E., Assistant Physician, Wisconsin State Hospital for the Insane, Mendota, Wis.
- Armstrong, T. S., Superintendent, Binghamton Asylum for Chronic Insane, Binghamton, N. Y.
- Arnold, J. A., General Medical Superintendent, Kings County Asylums, Flatbush, N. Y.
- Atwood, LeGrand, Superintendent, St. Louis Insane Asylum, St. Louis, Mo.
- Bancroft, C. P., Superintendent, Asylum for the Insane, Concord, N. H.
- Bannister, H. M., Assistant Physician, Illinois Eastern Hospital for the Insane, Kankakee, Ill.
- Barksdale, Randolph, Superintendent, Central Lunatic Asylum, Petersburg, Va.
- Barstow, J. W., Superintendent, Sanford Hall, Flushing, N. Y.
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- Bishop, S., Superintendent, State Lunatic Asylum, Reno, Nev.
- Black, Harvey, Physician and Superintendent, Southwestern Lunatic Asylum, Marion, Va.
- Blanchard, E. S., Medical Superintendent, Prince Edward Island Hospital for the Insane, Charlottetown, P. E. I.
- Bland, W. J., Superintendent, West Virginia Hospital for the Insane, Weston, W. Va.
- Blumer, G. A., Medical Superintendent, New York State Lunatic Asylum, Utica, N. Y.
- Booth, C. E., Superintendent Northern Hospital for the Insane, Winnebago, Wis.
- Booth, E. C., Medical Director, State Asylum for the Insane, Morristown, N. J.
- Bowers, J. E., Superintendent and Physician, Second Minnesota Hospital for the Insane, Rochester, Minn.
- Brown, J. P., Superintendent, State Lunatic Asylum, Taunton, Mass.
- Brown, J. R., Assistant Physician, Eastern Hospital for the Insane, Knoxville, Tenn.

- Brush, E. N., Assistant Physician, Pennsylvania Hospital for Insane, Philadelphia, Pa.
- Bryce, P., Superintendent, Alabama Insane Asylum, Tuscaloosa, Ala.
- Buchan, H. E., Assistant Medical Superintendent, Asylum for the Insane, Toronto, Ont., Can.
- Buckmaster, S. B., Superintendent, Wisconsin State Hospital for Insane, Mendota, Wis.
- Burgess, T. J. W., Assistant Superintendent, Asylum for the Insane, Hamilton, Ont., Can.
- Bucke, R. M., Superintendent, Asylum for the Insane, London, Ont., Can.
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- Callender, J. H., Superintendent, State Hospital for the Insane, Nashville, Tenn.
- Campbell, Michael, Superintendent, Eastern Hospital for Insane, Knoxville, Tenn.
- Carriel, H. F., Medical Superintendent, Illinois Central Hospital for Insane, Jacksonville, Ill.
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- Chapin, J. B., Physician-in-Chief and Superintendent, Pennsylvania Hospital for the Insane, Philadelphia, Pa.
- Chase, R. H., Superintendent, State Hospital for the Insane, Norristown, Pa.
- Clarke, C. K., Medical Superintendent, Asylum for the Insane, Kingston, Ont., Can.
- Clark, Daniel, Medical Superintendent, Asylum for the Insane, Toronto, Ont., Can.
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- Cowles, Edward, Superintendent, McLean Asylum, Somerville, Mass.
- Cravens, J. F., Superintendent, Hospital for the Insane, Yankton, Dak.
- Curwen, John, Physician-in-Chief and Superintendent, State Hospital for the Insane, Warren, Pa.
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- Dozier, L. F., Assistant Physician, Napa State Asylum for the Insane, Napa, Cal.
- Draper, Joseph, Superintendent and Physician, Vermont Asylum for the Insane, Brattleboro, Vt.
- Drewry, W. F., Assistant Physician, Central Lunatic Asylum, Petersburg, Va.
- Duvall, A., Assistant Physician, Eastern Kentucky Lunatic Asylum, Lexington, Ky.
- Eastman, B. D., Superintendent, State Lunatic Asylum, Topeka, Kansas.
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- Elliot, E. P., Assistant Physician, Danvers Lunatic Asylum, Danvers, Mass.
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- Everts, O., Superintendent, Cincinnati Sanitarium, College Hill, O.
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- Eyrnam, H. C., Assistant Physician, Toledo Asylum for the Insane, Toledo, O.
- Faison, W. W., Assistant Physician, Eastern North Carolina Insane Asylum, Goldsboro, N. C.
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- McNulty, F. J., Superintendent, Retreat for the Insane, Dorchester, Mass.
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- Park, J. G., Superintendent, Worcester Lunatic Hospital, Worcester, Mass.
- Parsons, R. L., Superintendent, Greenmount Asylum, Sing Sing, N. Y.
- Patterson, R. J., Superintendent, Bellevue Place, Batavia, Ill.
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- Preston, John, Assistant Physician, State Lunatic Asylum, Austin, Texas.
- Preston, R. J., Assistant Physician, Southwestern Lunatic Asylum, Marion, Va.
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- Rodes, W. R., Superintendent and Physician, State Lunatic Asylum, Fulton, Mo.

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- Rogers, W. H., Assistant Physician, Central Kentucky Lunatic Asylum, Anchorage, Ky.
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- Savage, T. R., Assistant Medical Superintendent, Michigan Asylum for the Insane, Kalamazoo, Mich.
- Schultz, S. S., Medical Superintendent, State Hospital for the Insane, Danville, Pa.
- Scribner, E. V., Assistant Physician, Worcester Insane Asylum, Worcester, Mass.
- Sefton, Fred, Assistant Physician, State Asylum for Insane Criminals, Auburn, N. Y.
- Seip, M. S., Assistant Physician, State Hospital for the Insane, Danville, Pa.
- Shanks, J. J., Assistant Physician, Kings County Insane Asylum, Flatbush, N. Y.
- Sims, F. H., Assistant Physician, Alabama Insane Asylum, Tuskaloosa, Ala.
- Sinclair, G. L., Assistant Physician, Nova Scotia Hospital for the Insane, Halifax, N. S.
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- Steeves, J. T., Medical Superintendent, Provincial Lunatic Asylum, St. John, N. B.
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- Stone, W. G., Assistant Physician, Illinois Northern Hospital for Insane, Elgin, Ill.
- Strong, Jamin, Superintendent, Cleveland Asylum for the Insane, Cleveland, O.
- Swift, Robert, Assistant Superintendent, Boston Lunatic Hospital, Boston, Mass.
- Talcott, S. H., Superintendent, State Homœopathic Asylum for the Insane, Middletown, N. Y.
- Thomas, A. J., Assistant Superintendent, Indiana Hospital for the Insane, Indianapolis, Ind.
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- Tobey, H. A., Medical Superintendent, Toledo Asylum for the Insane, Toledo, O.
- Trautman, Alex., Medical Superintendent, New York City Asylum for the Insane, Wards Island, New York City.
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- Twitchell, G. B., Superintendent, Private Asylum, Keene, N. H.
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- Wallace, W. H. H., Assistant Physician, New York City Lunatic Asylum, Blackwell's Island, New York City.
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- Wardner, Horace, Superintendent, Southern Hospital for the Insane, Anna, Ill.
- Waughop, J. W., Superintendent, Washington Hospital for the Insane, Fort Steilacoom, W. T.
- Wentworth, L. F., Assistant Superintendent, State Lunatic Asylum, Topeka, Kan.
- White, F. S., Assistant Physician, North Texas Insane Asylum, Terrell, Tex.
- White, M. J., Assistant Physician, Milwaukee Asylum for the Insane, Wauwatosa, Wis.
- Wilkerson, A., Assistant Physician, State Lunatic Asylum, Fulton, Mo.
- Wilkins, E. T., Resident Physician, Napa State Asylum for the Insane, Napa, Cal.
- Williams, H. B., Assistant Physician, State Lunatic Asylum, Little Rock, Ark.
- Williamson, A. P., Assistant Physician, State Homœopathic Asylum, Middletown, N. Y.
- Williamson, W. T., Assistant Physician, State Insane Asylum, Salem, Oregon.
- Wise, P. M., Superintendent, Willard Asylum for the Chronic Insane, Willard, N. Y.
- Witmer, A. H., Assistant Physician, Government Asylum for the Insane, Washington, D. C.
- Witte, M. E., Assistant Physician, Iowa Hospital for the Insane, Mount Pleasant, Ia.
- Worcester, W. L., Assistant Physician, Michigan Asylum for the Insane, Kalamazoo, Mich.
- Young, —, Superintendent, State Asylum No. 3, Nevada, Mo.

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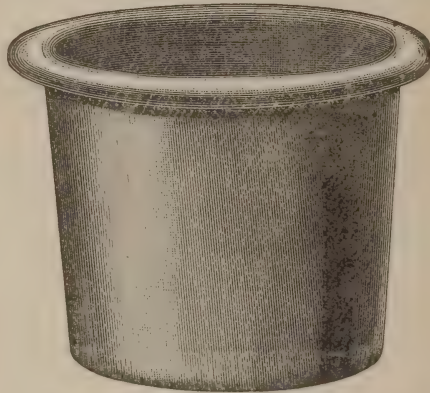
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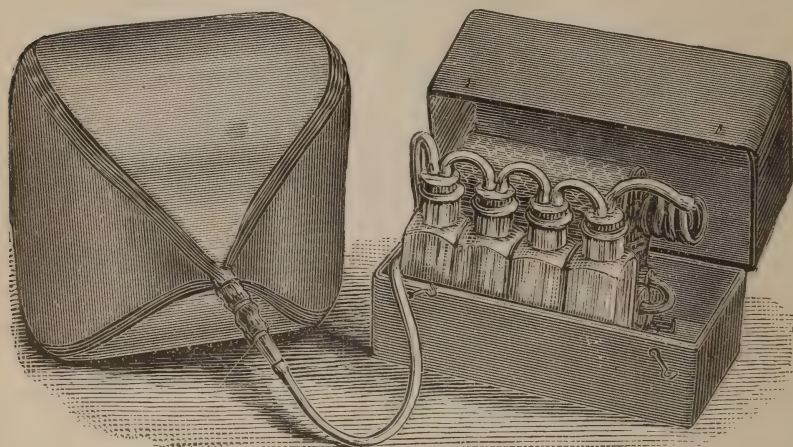
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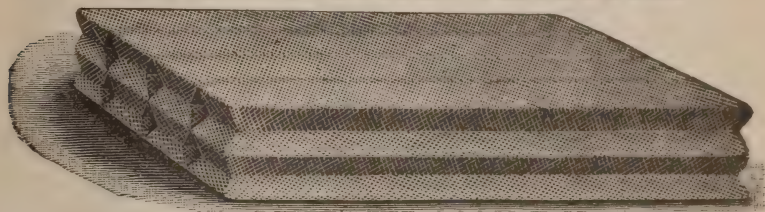
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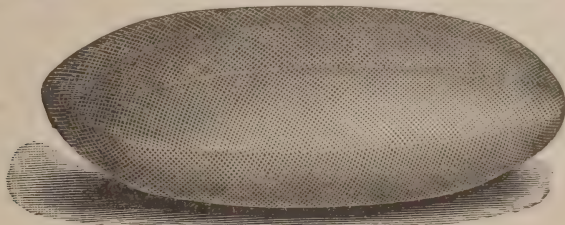
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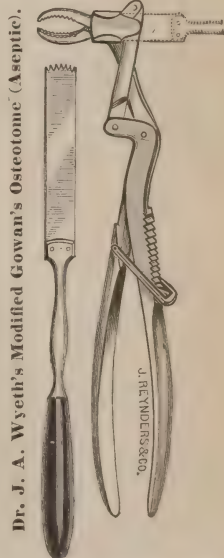
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